

217/782-2113

"REVISED"
TITLE V - CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT
and
TITLE I PERMIT¹

PERMITTEE

Archer Daniels Midland Company - Peoria
Attn: Jim McQuellon
Foot of Edmund Street
Peoria, Illinois 61602

<u>Application No.:</u> 96030039	<u>I.D. No.:</u> 143065AJE
<u>Applicant's Designation:</u>	<u>Date Received:</u> March 5, 1996
<u>Operation of:</u> Dry Corn Mill and Ethanol Plant	
<u>Date Issued:</u> December 1, 2003	<u>Expiration Date</u> ² : December 1, 2008
<u>Source Location:</u> Foot of Edmund Street, Peoria County, Peoria, Illinois, 61602	
<u>Responsible Official:</u> Jeff Moery, Plant Manager	

This permit is hereby granted to the above-designated Permittee to OPERATE a Dry Corn Mill and Ethanol Plant, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

Revision Date Received: March 29, 2004
Revision Date Issued: November 9, 2004
Purpose of Revision: Minor Modification

This minor modification replaces the pound per hour limits on NO_x in Section 7.9.6 to pounds per million Btu limits, based on a 30 day rolling average.

This document only contains those portions of the entire CAAPP permit that have been revised as a result of this permitting action. If a conflict exists between this document and previous versions of the CAAPP permit, this document supercedes those terms and conditions of the permit for which the conflict exists. The previous permit issued December 1, 2003 is incorporated herein by reference.

Please attach a copy of this amendment and the following revised pages to the front of the most recently issued entire permit.

If you have any questions concerning this permit, please contact Michael Haggitt at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:MVH:psj

cc: Illinois EPA, FOS, Region 3
USEPA

¹ This permit contains terms and conditions that address the applicability, and compliance if determined applicable, of Title I of the CAA and regulations promulgated thereunder, including 40 CFR 52.21 - federal PSD and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within this permit.

² Except as provided in Condition 8.7 of this permit.

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1.0 SOURCE IDENTIFICATION

1.1 Source

Archer Daniels Midland Company - Peoria
Foot of Edmund Street
Peoria, Illinois 61602
309/673-7828

I.D. No.: 143065AJE

Standard Industrial Classification: 2085, Distilled and Blended
Liquors
2869, Industrial Organic
Chemicals, Ethanol

1.2 Owner/Parent Company

Archer Daniels Midland Company
4666 Faries Parkway
Decatur, Illinois 62525

1.3 Operator

Archer Daniels Midland Company
4666 Faries Parkway
Decatur, Illinois 62525

Jim McQuellon
309/669-1614

1.4 General Source Description

The Archer Daniels Midland Company - Peoria is located at Foot of Edmund Street in Peoria. The source operates a Wet Corn Mill, separating only germ from the corn, and an Ethanol Plant.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
ATU	Allotment Trading Unit
Btu	British thermal unit
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
CAS	Chemical Abstract Service
CO	Carbon Monoxide
CFR	Code of Federal Regulations
ERMS	Emissions Reduction Market System
ft ³	Cubic Feet
gal	Gallon
HAP	Hazardous Air Pollutant
hr	hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
Illinois EPA	Illinois Environmental Protection Agency
°K	Degrees Kelvin
kPa	Kilopascals
kg	Kilograms
kW	Kilowatts
l	liters
lb	Pound
ILCS	Illinois Compiled Statutes
MBtu	Million British thermal units
Mg	Megagrams
MW	Megawatts
mmHg	Millimeters of Mercury
mmscf	Million standard cubic feet
mo	Month
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standards
psia	pounds per square inch absolute
PM	Particulate Matter
PM ₁₀	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
ppm	parts per million
PSD	Prevention of Significant Deterioration
RMP	Risk Management Plan
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
T1	Title I - identifies Title I conditions that have been carried over from an existing permit

T1N	Title I New - identifies Title I conditions that are being established in this permit
T1R	Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
VOL	Volatile Organic Liquid
VOM	Volatile Organic Material
yr	Year

3.0 INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

- 3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a) (1) and 201.211, as follows:

None

- 3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a) (2) or (a) (3), as follows:

None

- 3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a) (4) through (18), as follows:

Direct combustion units designed and used for comfort heating purposes and fuel combustion emission units as follows: (A) Units with a rated heat input capacity of less than 2.5 MBtu/hr that fire only natural gas, propane, or liquefied petroleum gas; (B) Units with a rated heat input capacity of less than 1.0 MBtu/hr that fire only oil or oil in combination with only natural gas, propane, or liquefied petroleum gas; and (C) Units with a rated heat input capacity of less than 200,000 Btu/hr which never burn refuse, or treated or chemically contaminated wood [35 IAC 201.210(a) (4)].

Storage tanks of organic liquids with a capacity of less than 10,000 gallons and an annual throughput of less than 100,000 gallons per year, provided the storage tank is not used for the storage of gasoline or any material listed as a HAP pursuant to Section 112(b) of the CAA [35 IAC 201.210(a) (10)].

Gas turbines and stationary reciprocating internal combustion engines of between 112 kW and 1,118 kW (150 and 1,500 horsepower) power output that are emergency or standby units [35 IAC 201.210(a) (16)].

Loading and unloading systems for railcars, tank trucks, or watercraft that handle only the following liquid materials, provided an organic solvent has not been mixed with such materials: soaps, detergents, surfactants, lubricating oils, waxes, glycerin, vegetable oils, greases, animal fats, sweetener, corn

syrup, aqueous salt solutions, or aqueous caustic solutions [35 IAC 201.210(a)(18)].

- 3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b).

3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.2.2), the Permittee shall comply with the following requirements, as applicable:

- 3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 215.182, 218.182, or 219.182.
- 3.2.2 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.
- 3.2.3 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, 218.301, or 219.301, which requires that organic material emissions not exceed 8.0 pounds per hour or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

3.3 Addition of Insignificant Activities

- 3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).
- 3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.
- 3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission Unit	Description	Date Constructed	Emission Control Equipment
Elevator			
Corn Truck Pits 1 and 2	Truck Dump Pits for Grain	January 1994	Baghouse
Screenings Tank	Storage of Corn Screenings	January 1995	Baghouse
Elevators	Storage of Grain	1955	Baghouse
Rail Unloading	Railcar Unloading of Grain		None
New Dock Loadout	Loading of grain to barge	1996	Baghouse
Degerm			
Fluid Bed Germ Dryer	Drying of Corn Germ	January 1988	Cyclones
Germ Loadout	Truck Loadout of Germ	January 1988	Baghouse
Grind Tank 1 & 2	Grinding of Grain	January 1988	None
Germ Receiver	Conveyance of Germ	January 1988	None
Germ Silos (2)	Storage of Germ	January 1988	Baghouse
Degerm Recycle Water Tank (2)	Processing of Water	January 1988	None
Temper Tanks (3)	Softening of Corn	January 1988	None
Bauer Tank	Germ Processing	January 1988	None
Corn Mill			
Hammer Mills	Grinding of Grain	January 1990	Baghouse
Mix Tanks T1 & T2	Mixing of Grain		None
Fermenters 25 - 42	Fermentation of Grain	January 1980	CO ₂ Scrubber and Afterburner
Yeast Propagators	Propagators		None
Flash Cooler Condenser Steam Ejector	Induced draft for process		None
"B Sewer Tank"	Water processing		None
T-1 Hotwell	Water processing		None
T-2 Hotwell	Water processing		None
Yeast Tubs	Preparation of Yeast		None
Fertilizer Tanks	Storage of fertilizer		None
Alpha Storage Tubs	Storage of Enzyme		None
Gluc Tubs	Storage of glucogen		None
"A Sewer Tank"	Water processing		None
MR Washwater Tank	Water processing		None
"Ferm 3"	Water Processing		None
CO2 Scrubber	Reclamation of Ethanol	1983	RTO

Emission Unit	Description	Date Constructed	Emission Control Equipment
Feed House			
Feed Dryers 1 - 7	Drying of Feed	January 1982	Scrubbers and Afterburner
Feed Coolers 1-7, A, B	Cooling of Feed	January 1938	Scrubber
Truck Feed Loadout	Truck loading of distillers dried grain	January 1993	Baghouse
Pellet Coolers	Cooling of distillers dried grain	February 1996	Cyclone
Pellet Handling	Conveying of Pellets	January 1996	Baghouse
Pellet Loadout	Loading of pellets and distillers dried grain	1996	Baghouse
Sharples (13)	Dewatering of beerstill bottoms by centrifugation		None
Rail Car Feed Loadout	Loadout of distillers dried grain	1988	Baghouse
Barge Feed Loadout	Loadout of distillers dried grain	1988	Baghouse
Mixers	Mixing of wet feed	1988	None
Hotwell	Collection of condensate	1988	None
Hammermills (2)	Hammermilling of feed		Baghouse
Sharples 1-3 Wet Drag	Wet feed mixing	1988	None
Sharples Effluent Tank	Wet feed processing	1988	None
Still House			
Beer Well	Process Storage of Beer Produced by Fermentation	January 1982	None
Rectifiers 1 through 8	Distillation of Ethanol	January 1988	Vent Scrubbers
R20-/Old Stills	Distillation of ethanol	January 1933	Scrubber
NP 101 Thin Stillage Tank	Storage of Stillage	January 1982	None
NP 105 Whole Stillage Tank	Storage of Stillage	January 1982	None
NP 106 Alcohol	Storage of 190 Proof Alcohol	January 1982	None
NP108 Quad Tank	Storage of stillage	January 1982	None
NP 109 Alcohol	Processing of 190 proof alcohol	January 1982	None
NP 110 Nitrogen Scrubber Feed Tank	Processing of 200 proof alcohol	January 1982	Scrubber
NP 111 Fusel Oil Tank	Fusel oil storage tank	January 1982	None
NP 112 MR Tank	Storage of Stillage	January 1982	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
NP 113 Fusel Oil Tank	Fusel Oil Storage Tank	January 1982	None
NP 115 Alcohol	200 Proof Ethanol processing tank	January 1982	Scrubber
Hi Wines Tank 13 through 18	Ethanol production tank	January 1935	None
HiWines Tank 32-35	Ethanol production tank	January 1935	None
Q House Tank 21 through 27	Ethanol production tank	January 1935	None
Distillation Column #9	Distillation column	1997	Scrubber
Molecular Sieve	Drying of ethanol	1997	Vent condenser
Beerheaters (3)	Preheat beerstill feed	1988	None
Fusel Oil Decanter	Collection of fusel oil		None
Stillhouse hotwell	Processing of water		None
Grits Columns	Three Grits Columns		Vent Scrubber
P & G 101 & 102 Alcohol Tanks	Ethanol production tanks	January 1982	None
P & G 103, 104 & 105 Alcohol Tanks	Ethanol production tanks	January 1994	Floating Roof
P & G 106 through 117 Alcohol Tanks	Ethanol production tanks	1996	Floating Roof
Storage Tanks			
NS 101, 102, 103 & 104 Alcohol Tanks	Alcohol Storage Tanks	January 1982	None
NS 105 & 106 Alcohol Tanks	Alcohol Storage Tanks	January 1993	Floating Roofs
NS 107 Alcohol Tank	Alcohol Storage Tank	January 1995	Floating Roof
Denaturant Storage Tanks	Seven Denaturant Storage Tanks	1997	None
Bottling			
Plastic Pellet Conveyance	Conveyance of plastic pellets to bottle preform manufacturing	1996	Filter
Plastic Pellet Drying	Removal of moisture from plastic pellets	1996	None
Plastic Resin Silos	Resin storage	1996	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
Alcohol Loadout			
Fuel Alcohol Truck (Motor Pool)	Truck Loading of Alcohol		Submerged Loading
Fuel Alcohol Truck (Tank Farm)	Truck Loading of Alcohol	1998	Submerged Loading
Fuel/ Beverage Alcohol (Barge)	Barge Loading of Beverage alcohol		Submerged Loading
Fuel/Beverage Alcohol (Rail Car)	Rail Car Loading of Beverage Alcohol		Submerged Loading
Cistern Tank - 19	Processing tank	1945	None
Cistern tanks C/9-18	Processing tank	1945	None
Cistern Tanks C/3-8	Processing tank	1945	None
Fusel oil tanks at Cistern Bldg.		1945	
Unleaded Gasoline Tanks 1 & 2	39,000 Gallon Underground Gasoline Storage Tanks	November 1983 <u>Modified:</u> January 1988	Submerged Loading
55 gallon drum loading	Loading of 55 gal drums		None
Unleaded gasoline tank	Vehicle refueling		None
Diesel Fuel tank	Vehicle and equipment fueling		None
Power House			
Boiler 1	Coal Fired Boiler With Backup Natural Gas Rated at 187 mmBtu/Hr.	1934/1934/ 1945	Electrostatic Precipitator
Boiler 2	Coal Fired Boiler With Backup Natural Gas Rated at 187 mmBtu/Hr	<u>Modified to</u> <u>Burn Gas:</u>	Electrostatic Precipitator
Boiler 3	Coal Fired Boiler With Backup Natural Gas Rated at 250 mmBtu/Hr		
Boiler 4	Natural Gas Fired Boiler Rated at 108 mmBtu/Hr	November 1972	None
Boiler 5	Natural Gas Fired Boiler Rated at 250 mmBtu/Hr	January 1970	None
Turbine 6	Natural Gas Fired Turbine Rated at 230 mmBtu/Hr With a Waste Heat Boiler	January 1965	Steam Injection

Emission Unit	Description	Date Constructed	Emission Control Equipment
Turbine 7	Natural Gas Fired Turbine Rated at 230 mmBtu/Hr With a Waste Heat Boiler	January 1965	Steam Injection
Turbine 8	Natural Gas Fired Turbine Rated at 230 mmBtu/Hr	January 1961	Steam Injection
Boiler 9 (Old 6)	Natural Gas Fired Boiler Rated at 108 mmBtu/Hr	January 1963	None
Boiler 10 (Old 7)	Natural Gas Fired Boiler Rated at 207 mmBtu/Hr	January 1988	None
Boiler 11	Natural Gas Fired Boiler Rated at 207 mmBtu/Hr	January 1995	None
Boiler 12	Natural Gas Fired Boiler Rated at 200 mmBtu/Hr	April 1996	None
Coal Unloading	Truck unloading of coal	1945	Water spray
Coal Storage	Storage of coal	1945	
Flyash Silo	Storage of flyash	1945	Baghouse
Lime & Soda Ash Mixing	Boiler water treatment		None

5.0 OVERALL SOURCE CONDITIONS

5.1 Source Description

- 5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of HAP, VOM, PM, CO, NO_x and SO₂ emissions.
- 5.1.2 This permit is issued based on the source requiring a CAAPP permit because the source is subject to a standard, limitation, or other requirement under Section 111 (NSPS) or Section 112 (HAPs) of the CAA for which USEPA requires a CAAPP permit, or because the source is in a source category designated by the USEPA, pursuant to 40 CFR 70.3(a)(2), (3), and (5) (40 CFR 70.3 Applicability) [Section 39.5(2)(a)(ii) and (iv) of the Act].

5.2 Applicable Regulations

- 5.2.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions) of this permit.
- 5.2.2 In addition, emission units at this source are subject to the following regulations of general applicability:
 - a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.
 - b. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.
- 5.2.3 Fugitive Particulate Matter Operating Program
 - a. This source shall be operated under the provisions of an operating program prepared by the Permittee and submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions [35 IAC 212.309(a)].
 - b. The operating program shall be amended from time to time by the Permittee so that the operating program is

current. Such amendments shall be consistent with the requirements set forth by this Condition and shall be submitted to the Illinois EPA [35 IAC 212.312].

- c. All normal traffic pattern roads and parking facilities located at this source shall be paved or treated with water, oils, or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils, or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the operating program [35 IAC 212.306].

5.2.4 Ozone Depleting Substances

The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

5.2.5 Risk Management Plan

Should this stationary source, as defined in 40 CFR Section 68.3, become subject to the Accidental Release Prevention regulations in 40 CFR Part 68, then the owner or operator shall submit [40 CFR 68.215(a)(2)(i) and (ii)]:

- a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or
- b. A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan (RMP), as part of the annual compliance certification required by 40 CFR Part 70 or 71.

5.2.6 Future Applicable Regulations

- a. Should this stationary source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by 40 CFR Part 70 or 71.
- b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable requirements of any potentially applicable regulation which was promulgated after the date issued of this permit.
- c. This stationary source will be subject to 40 CFR Part 63, Subpart National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline) and National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines, when such rules become final and effective. The Permittee shall comply with the applicable requirements of such regulations by the date(s) specified in such regulation and shall certify compliance with the applicable requirements of such regulation as part of the annual compliance certification required by 40 CFR Part 70 or 71 beginning in the year that compliance is required under a final and effective rule.

5.2.7 Episode Action Plan

- a. The Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144.
- b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.
- c. If a change occurs at the source which requires a revision of the plan (e.g., operational change, change in the source contact person), a copy of the

revised plan shall be submitted to the Illinois EPA for review within 30 days of the change. Such plans shall be further revised if disapproved by the Illinois EPA.

5.2.9 CAM Plan

This stationary source has a pollutant-specific emissions unit that is subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources. The source must submit a CAM plan for each affected pollutant-specific emissions unit upon application for renewal of the initial CAAPP permit, or upon a significant modification to the CAAPP permit for the construction or modification of a large pollutant-specific emissions unit which has the potential post-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

5.3 Non-Applicability of Regulations of Concern

None

5.4 Source-Wide Operational and Production Limits and Work Practices

In addition to the source-wide requirements in the Standard Permit Conditions in Section 9, the Permittee shall fulfill the following source-wide operational and production limitations and/or work practice requirements:

None

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

Emission limitations are not set for this source for the purpose of permit fees. The Permittee shall be required to pay the maximum fee of \$250,000.00 per year, pursuant to Section 39.5(18)(a)(ii)(A) of the Act.

5.5.2 Emissions of Hazardous Air Pollutants

Source-wide emission limitations for HAPs as listed in Section 112(b) of the CAA are not set. This source is considered to be a major source of HAPs.

5.5.3 Other Source-Wide Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to either the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, Illinois EPA rules for Major Stationary Sources Construction and Modification, 35 IAC Part 203, or Section

502(b)(10) of the CAA. However, there may be unit specific emission limitations set forth in Section 7 of this permit pursuant to these rules.

5.6 General Recordkeeping Requirements

5.6.1 Emission Records

The Permittee shall maintain records of the following items for the source to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

Total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions) of this permit.

5.6.2 Records for Operating Scenarios

N/A

5.6.3 Retention and Availability of Records

- a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
- b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

5.7 General Reporting Requirements

5.7.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

5.7.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information for the previous calendar year.

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating Emissions

Compliance with the source-wide emission limits specified in Condition 5.5 shall be based on the recordkeeping and reporting requirements of Conditions 5.6 and 5.7, and Compliance Procedures in Section 7 (Unit Specific Conditions) of this permit.

5.10 Consent Decree

- a. The Permittee shall comply with applicable requirements of the Consent Decree, United States v. Archer Daniels Midland Company, Civil Action No. 03-2066 for the affected facility, including provisions in the Control Technology Plan for Peoria prepared and maintained pursuant to the Consent Decree (See Attachment 10.1 for a copy of the Control Technology Plan effective when this permit was issued).
- b. i. The Permittee shall carry out the Emission Reduction Projects for this source required by the Consent Decree as follows, (Consent Decree, Paragraphs 17, 23 and 25)
 - A. The Permittee shall meet the unit emission limits or percentage reductions (collectively referred to herein as "emission reduction projects") set forth below in accordance with the attached CTPs. Where the Consent Decree requires "percent reductions," these reductions shall be demonstrated by calculating the difference between the mass of pollutants measured at the control device inlet and outlet unless otherwise specified in a CTP or Attachment 12. Where part per million ("ppm") limits are referenced in this Consent Decree or the CTPs, compliance will be determined using ppm by volume on a dry basis. Where optimization of existing equipment is required under this Consent Decree, initial startup will be defined as completion of the optimization study, for purposes of Paragraph 34 and the applicable CTP.

- B. VOC/CO/PM Emission Reduction Projects
- Direct-Fired Feed Dryers (RTO bypass stream):
- VOC: 95% control or 10 ppm
CO: 90% control or 100 ppm
PM: Emission limits to be set as described in the CTP
- C. VOC Emission Reduction Projects
- Yeast Propagators: 95% control or 20 ppm
Ethanol Fermenters: 95% control or 20 ppm
Non-dedicated Ethanol Loadout: 95% control
- D. The Permittee shall reduce emissions of SO₂ from the Coal Boilers 1, 2 and 3 in order to meet the following requirements:
1. 12-month limit: The combined SO₂ emissions from Coal Boilers 1, 2 and 3 shall not exceed 3,400 tons per rolling 12-month period.
 2. 30-day limit: The combined SO₂ emissions from Coal Boilers 1, 2 and 3 shall not exceed 421 tons per rolling 30-day period.
- ii. A. Reduction in VOC Emissions shall be accomplished in accordance with Paragraph 28 of the Consent Decree, with all VOC emission reductions achieved by December 31, 2012.
- B. Reduction in SO₂ Emissions from Coal Boilers 1, 2 and 3 shall be accomplished in accordance with Paragraph 28(b) of the Consent Decree, that is, the Permittee shall comply with a 30-day rolling limit of 421 tons by March 31, 2007 and with a 12-month rolling limit of 3,400 tons by March 31, 2008.
- iii. The Permittee shall seek to obtain all required permits for emission reduction projects, in accordance with Paragraphs 37, 38 and 39(a) of the Consent Decree.
- iv. Upon completion of each emission reduction project at this source, the Permittee shall demonstrate compliance with the applicable emissions limits and/or destruction efficiency requirement through source testing, continuous or emission or parametric monitoring, recordkeeping and reporting, as appropriate, as set forth in Paragraph 31 through 34

of the Consent Decree and the associated Control Technology Plan for Peoria.

- v. The Permittee shall conduct monitoring, recordkeeping and reporting for the emission units at this source in accordance with Paragraphs 43 through 46 of the Consent Decree, including:
 - A. Ongoing operational monitoring.
 - B. Submittal of Semiannual Reports.
 - C. Appropriate retention of Records.
- c. As provided by Paragraph 39(b) of the Consent Decree, for emission units not required to implement emission reduction projects under this Consent Decree, the Permittee has until February 21, 2005 to apply for a permit or permit amendment imposing or modifying VOC and CO limits for units at this source. The Permittee's failure to submit full and complete applications for these permits or permit amendments by this day may subject it to additional civil penalties and injunctive relief requirements. The Permittee shall submit a list of emission units for which applications for permits or permit amendments were filed in its January 30, 2005 semiannual report. This provision shall not extend any deadlines for submission of CAAPP permit applications.
- d. The Permittee shall carry out provisions of the Consent Decree to resolve applicability of federal New Source Performance Standards (NSPS) to emission units at the source, as set forth in Paragraphs 40, 41 and 42 of the Consent Decree.
- e. For the purpose of this permit the terms VOC and VOM are synonymous.

6.0 NOT APPLICABLE TO THIS PERMIT

7.0 UNIT SPECIFIC CONDITIONS

7.1 Elevator

7.1.1 Description

Corn is loaded to the elevator from two truck dump pits, a rail dump and one rail-to-barge transfer station. Corn to be processed is transported to the elevator storage silos, cleaned and then conveyed to Degerm or Corn Mill. Particulate emissions from the elevator are controlled by several baghouses which aspirate the dump pit, barge loadout sites and the grain handling and conveying operations.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Corn Truck Pits 1 and 2	Truck Dump Pits for Grain	Baghouse
Screenings Tank	Storage of Corn Screenings	Baghouse
Elevators	Storage of Grain	Baghouse
Rail Unloading	Railcar Unloading of Grain	None
New Dock Loadout	Loading of grain to barge	Baghouse

7.1.3 Applicability Provisions and Applicable Regulations

- a. The "affected elevator" for the purpose of these unit-specific conditions, is the equipment listed in Condition 7.1.1 and 7.1.2.
- b. The affected elevator is subject to the emission limits identified in Condition 5.2.2.
- c. The affected elevator is subject to 35 IAC 212.462 - Grain Handling Operations

Unless otherwise exempted pursuant to 35 IAC 212.461(c) or (d), or allowed to use alternate control according to 35 IAC 212.461(g), existing grain-handling operations with a total annual grain through-put of 300,000 bushels or more shall demonstrate compliance with the following [35 IAC 212.462]:

Cleaning and Separating Operations: [35 IAC 212.462(a)]

- i. Particulate matter generated during cleaning and separating operations shall be captured to

the extent necessary to prevent visible particulate matter emissions directly into the atmosphere [35 IAC 212.462(a)(1)].

- ii. For grain-handling sources having a grain through-put of not more than 2 million bushels per year or located outside a major population area, air contaminants collected from cleaning and separating operations shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 90 percent by weight prior to release into the atmosphere [35 IAC 212.462(a)(2)].
- iii. For grain-handling sources having a grain through-put exceeding 2 million bushels per year and located within a major population area, air contaminants collected from cleaning and separating operations shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 98 percent by weight prior to release into the atmosphere [35 IAC 212.462(a)(3)].

Major Dump-Pit Area: [35 IAC 212.462(b)]

Induced Draft [35 IAC 212.462(b)(1)]

- iv. Induced draft shall be applied to major dump pits and their associated equipment (including, but not limited to, boots, hoppers and legs) to such an extent that a minimum face velocity is maintained, at the effective grate surface, sufficient to contain particulate emissions generated in unloading operations. The minimum face velocity at the effective grate surface shall be at least 200 fpm, which shall be determined by using the equation: [35 IAC 212.462(b)(1)(A)]

$$V = Q/A$$

Where:

V = Face velocity

Q = Induced draft volume in scfm

A = Effective grate area in ft²

- v. The induced draft air stream for grain-handling sources having a grain through-put of not more than 2 million bushels per year or

located outside a major population area shall be confined and conveyed through air pollution control equipment which has an overall rated and actual particulate collection efficiency of not less than 90 percent by weight; and [35 IAC 212.462(b) (1) (B)]

- vi. The induced draft air stream for grain-handling sources having a grain through-put exceeding 2 million bushels per year and located in a major population area shall be confined and conveyed through air pollution control equipment which has an overall rated and actual particulate collection efficiency of not less than 98 percent by weight; and [35 IAC 212.462(b) (1) (C)]
- vii. Means or devices (including, but not limited to, quick-closing doors, air curtains or wind deflectors) shall be employed to prevent a wind velocity in excess of 50 percent of the induced draft face velocity at the pit; provided, however, that such means or devices do not have to achieve the same degree of prevention when the ambient air wind exceeds 25 mph. The wind velocity shall be measured, with the induced draft system not operating, at a point midway between the dump-pit area walls at the point where the wind exits the dump-pit area, and at a height above the dump-pit area floor of approximately 2 ft; or [35 IAC 212.462(b) (1) (D)]

Any equivalent method, technique, system or combination thereof adequate to achieve, at a minimum, a particulate matter emission reduction equal to the reduction which could be achieved by compliance with 35 IAC 212.462(b) (1) [35 IAC 212.462(b) (2)].

Internal Transferring Area: [35 IAC 212.462(c)]

- viii. Internal transferring area shall be enclosed to the extent necessary to prohibit visible particulate matter emissions directly into the atmosphere [35 IAC 212.462(c) (1)].
- ix. Air contaminants collected from internal transfer operations for grain-handling sources having a grain through-put of not more than 2 million bushels per year or located outside a major population area shall be conveyed through air pollution control equipment which has a rated and actual particulate removal

efficiency of not less than 90 percent by weight prior to release into the atmosphere.

- x. Air contaminants collected from internal transfer operations for grain-handling sources having a grain through-put exceeding 2 million bushels per year and located in a major population area shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 98 percent by weight prior to release into the atmosphere.

Load-Out Area: [35 IAC 212.462(d)]

- xi. Truck and hopper car loading shall employ socks, sleeves or equivalent devices which extend 6 inches below the sides of the receiving vehicle, except for topping off. Choke loading shall be considered an equivalent method as long as the discharge is no more than 12 inches above the sides of the receiving vehicle [35 IAC 212.462(d)(1)].

- xii. Box car loading shall employ means or devices to prevent the emission of particulate matter into the atmosphere to the fullest extent which is technologically and economically feasible [35 IAC 212.462(d)(2)].

Watercraft Loading: [35 IAC 212.462(d)(3)]

- xiii. Particulate matter emissions generated during loading for grain-handling sources having a grain through-put of not more than 2 million bushels per year or located outside a major population area shall be captured in an induced draft air stream, which shall be ducted through air pollution control equipment that has a rated and actual particulate matter removal efficiency of not less than 90 percent by weight prior to release into the atmosphere [35 IAC 212.462(d)(3)(A)].

- xiv. Particulate matter emissions generated during loading for grain-handling sources having a grain through-put exceeding 2 million bushels per year and located in a major population area shall be captured in an induced draft air stream, which shall be ducted through air pollution control equipment that has a rated and actual particulate removal efficiency of not less than 98 percent by weight prior to release into the atmosphere; except for the

portion of grain loaded by trimming machines for which particulate matter emission reductions, at a minimum, shall equal the reduction achieved by compliance with 35 IAC 212.462(d)(3)(A) [35 IAC 212.462(d)(3)(B)].

- d. Alternate Control of Particulate Emissions [35 IAC 212.461(g)].
 - i. Grain-handling or grain-drying operations, which were in numerical compliance with 35 IAC 212.322, as of April 14, 1972, and continue to be in compliance with 35 IAC 212.322 need not comply with the provisions under 35 IAC 212.461, except the housekeeping practices in 35 IAC 212.461(b) [35 IAC 212.461(g)(1)].
 - ii. Grain-handling or grain-drying operations, which were not in numerical compliance with 35 IAC 212.322, as of April 14, 1972, but which came into compliance with 35 IAC 212.321 prior to April 14, 1972, and continue to be in compliance with 35 IAC 212.321 need not comply with the provisions under 35 IAC 212.461, except the housekeeping practices in 35 IAC 212.461(b) [35 IAC 212.461(g)(2)].
 - iii. Proof of compliance with 35 IAC 212.461(g) shall be made by stack sampling and/or material balance results obtained from actual testing of the subject emission unit or process and be submitted at the time of an application for, or renewal of, an operating permit [35 IAC 212.461(g)(3)].
- e. The affected elevator's emission units not subject to 35 IAC 212.462 - Grain Handling Operations or 35 IAC 212.463 - Grain Drying Operations that were constructed prior to April 14, 1972 and were not modified thereafter are subject to 35 IAC 212.322(a), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (See also Attachment 10.3) [35 IAC 212.322(a)].

- f. The affected elevator's emission units not subject to 35 IAC 212.462 - Grain Handling Operations or 35 IAC 212.463 - Grain Drying Operations constructed or modified on or after April 14, 1972 are subject to 35 IAC 212.321(a), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (See also Attachment 10.2) [35 IAC 212.321(a)].

7.1.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected elevator not being subject to the New Source Performance Standards (NSPS) for Grain Elevators, 40 CFR Part 60, Subpart DD, because the affected elevator is not for human consumption, pursuant to 40 CFR 60.301(f).

7.1.5 Operational and Production Limits and Work Practices

- a. Housekeeping Practices. All grain-handling and grain-drying operations, regardless of size, must implement and use the following housekeeping practices: [35 IAC 212.461(b)]
 - i. Air pollution control devices shall be checked daily and cleaned as necessary to insure proper operation. [35 IAC 212.461(b)(1)]
 - ii. Cleaning and Maintenance. [35 IAC 212.461(b)(2)]
 - A. Floors shall be kept swept and cleaned from boot pit to cupola floor. Roof or bin decks and other exposed flat surfaces shall be kept clean of grain and dust that would tend to rot or become airborne. [35 IAC 212.461(b)(2)(A)]
 - B. Cleaning shall be handled in such a manner as not to permit dust to escape to the atmosphere. [35 IAC 212.461(b)(2)(B)]
 - C. The yard and surrounding open area, including but not limited to ditches and curbs, shall be cleaned to prevent the

accumulation of rotting grain. [35 IAC 212.461(b) (2) (C)]

iii. Dump Pit. [35 IAC 212.461(b) (3)]

A. Aspiration equipment shall be maintained and operated. [35 IAC 212.461(b) (3) (A)]

B. Dust control devices shall be maintained and operated. [35 IAC 212.461(b) (3) (B)]

iv. Head House. The head house shall be maintained in such a fashion that visible quantities of dust or dirt are not allowed to escape to the atmosphere. [35 IAC 212.461(b) (4)]

v. Property. The yard and driveway of any source shall be asphalted, oiled or equivalently treated to control dust. [35 IAC 212.461(b) (5)]

vi. Housekeeping Check List. Housekeeping check lists to be developed by the Agency shall be completed by the manager and maintained on the premises for inspection by Agency personnel. [35 IAC 212.461(b) (6)]

7.1.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected elevator is subject to the following:

- a. Emissions from the affected feed loadout system to rail and/or barge shall not exceed the following limits. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

PM Emissions	
<u>(Lb/Hr)</u>	<u>(Ton/Year)</u>
4.2	18.4

The above limitations were established in Permit 81050046, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). [T1].

7.1.7 Testing Requirements

- a. The affected elevator is subject to the applicable testing requirements established in 35 IAC Part 212

Subpart A: General Provisions for Particulate Matter Emissions.

7.1.8 Monitoring Requirements

None

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected elevator to demonstrate compliance with Conditions 5.5.1 and 7.1.6, pursuant to Section 39.5(7)(b) of the Act:

- a. Corn milled based on the daily grind rate, recorded at least once per day.
- b. Throughput (bushels/day monthly average).
- c. The maximum emission of PM/PM₁₀ (lb/hour) from each emission unit or group of emission units controlled by a single control device, considering maximum exhaust flow and nominal exhaust loading, with supporting documentation.
- d. Records addressing use of good operating practices for the control equipment:
 - i. Records for periodic inspection of the control equipment with date, individual performing the inspection, and nature of inspection; and
 - ii. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.

7.1.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, of deviations of the affected elevator with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. Emissions from or operation of the affected elevator in excess of the limits specified in Conditions 5.5.1, 7.1.3, 7.1.5 and 7.1.6 within 30 days of such occurrence.
- b. Emissions of PM, PM₁₀ from the affected elevator in tons/month and tons/year.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.1.12 Compliance Procedures

- a. Compliance with Conditions 5.5.1, 7.1.3 and 7.1.6, PM emissions from the affected elevator shall be calculated based on:
 - i. The applicable emission factors for grain elevators and grain processing, Tables 9.9.1-1 and 9.9.1-2, AP-42, Volume I, Fifth Edition, Supplement D, May, 1998, or current edition, or
 - ii. The results of emission test(s) on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Agency.
 - iii. $PM_{10} \text{ Emissions} = (\text{Air flow, cfm}) \times (\text{Estimated Dust Loading, gr/scf}) \times (1 \text{ lb}/7,000 \text{ gr}) \times (60 \text{ minutes/hr}) \times [100 - (\text{Efficiency, \%})/100]$

7.2 Degerm

7.2.1 Description

Clean corn from the elevator is conveyed to the Degerm operation where it is placed in tanks with water to help soften the corn for transport and grinding. After steeping, the corn is ground and subjected to a series of milling operations designed to separate the corn germ from the rest of the corn. After separation the germ is dewatered, dried and cooled prior to being loaded into trucks. Fiber from the separation process is ground and transported to the Corn Mill.

7.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Fluid Bed Germ Dryer	Drying of Corn Germ	Cyclones
Germ Loadout	Truck Loadout of Germ	Baghouse
Grind Tank 1 & 2	Grinding of Grain	None
Germ Receiver	Conveyance of Germ	None
Germ Silos (2)	Storage of Germ	Baghouse
Degerm Recycle Water Tank (2)	Processing of Water	None
Temper Tanks (3)	Softening of Corn	None
Bauer Tank	Germ Processing	None

7.2.3 Applicability Provisions and Applicable Regulations

- The "affected degerm process" for the purpose of these unit-specific conditions, is the equipment listed in Condition 7.2.1 and 7.2.2.
- The affected degerm process is subject to the emission limits identified in Condition 5.2.2.
- The affected degerm process emission units that were constructed prior to April 14, 1972 and not modified thereafter are subject to 35 IAC 212.322(a), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates

specified in subsection (c) of 35 IAC 212.322 (See also Attachment 10.3) [35 IAC 212.322(a)].

- d. The affected degerm process emission units constructed or modified on or after April 14, 1972 are subject to 35 IAC 212.321(a), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (See also Attachment 10.2) [35 IAC 212.321(a)].

7.2.4 Non-Applicability of Regulations of Concern

N/A

7.2.5 Operational and Production Limits and Work Practices

None

7.2.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected degerm process is subject to the following:

- a. i. Emissions from the following affected degerm processes shall not exceed the following limits:

Equipment	PM Emissions	
	(Lb/Hr)	(Ton/Yr)
Fluid Bed Germ Drying	0.82	3.570

- ii. PM emissions from feed and germ loadout shall not exceed 0.05 pounds per ton of material handled and 24.84 tons per year [T1].

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

The above limitations were established in Permit 94090059, pursuant to 40 CFR 52.21,

Prevention of Significant Deterioration (PSD)
[T1].

- b. Emissions from the following affected degerm process shall not exceed the following limits. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total)

Equipment	PM Emissions
	(Lb/Hr)
Dryer 3 & 4	0.14

The above limitations contain revisions to previously issued Permit 85090063. The Illinois EPA is establishing conditions in this permit that allow various refinements from the conditions of this aforementioned permit, consistent with the information provided in the CAAPP application. Specifically, the original hourly limit for dryer 3 & 4 was mistakenly recorded as 0.014 Lb/Hr when the actual number should be 0.14 Lb/Hr [T1R].

7.2.7 Testing Requirements

- a. Within 90 days of a written request from the Illinois EPA, the Permittee shall perform emissions and/or performance tests specified by the Illinois EPA. [35 IAC 201.282] The Illinois EPA may provide additional time for the performance on these tests upon written request by the Permittee.

7.2.8 Monitoring Requirements

None

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected degerm process to demonstrate compliance with Conditions 5.5.1 and 7.2.6, pursuant to Section 39.5(7)(b) of the Act:

- a. Throughput (Tons/day).

7.2.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected degerm process with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. Emissions from or operation of the affected degerm process in excess of the limits specified in Conditions 5.5.1 or 7.2.6 within 30 days of such occurrence.
- b. Emissions of PM and PM₁₀ from the affected degerm process in tons/month and tons/year.

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.2.12 Compliance Procedures

- a. Compliance with Condition 7.2.3(b) is assured and achieved by the proper operation and maintenance, as required by this section and the work-practices inherent in operation of the affected degerm process.

7.3 Corn Mill

7.3.1 Description

Corn, minus the germ removed in the Degerm process, is mixed with screenings from the elevator and subjected to a series of fermentation preparation steps. Enzyme and yeast are added and pH is adjusted. The resulting material called mash is then processed through a series of fermenters. The final product of fermentation is a low proof alcohol. The fermenters are vented through scrubbers to remove VOM prior to exhausting to the atmosphere, which is transported to the Still House where distillation produces higher proof alcohols. The Fermenters are also controlled by a regenerative thermal oxidizer (RTO).

7.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Hammer Mills	Grinding of Grain	Baghouse
Mix Tanks T1 & T2	Mixing of Grain	None
Fermenters 25 - 42	Fermentation of Grain	CO ₂ Scrubber and Afterburner
Yeast Propagators	Propagators	None
Flash Cooler Condenser Steam Ejector	Induced draft for process	None
"B Sewer Tank"	Water processing	None
T-1 Hotwell	Water processing	None
T-2 Hotwell	Water processing	None
Yeast Tubs	Preparation of Yeast	None
Fertilizer Tanks	Storage of fertilizer	None
Alpha Storage Tubs	Storage of Enzyme	None
Gluc Tubs	Storage of glucogen	None
"A Sewer Tank"	Water processing	None
MR Washwater Tank	Water processing	None
"Ferm 3"	Water Processing	None
CO ₂ Scrubber	Reclamation of Ethanol	RTO

7.3.3 Applicability Provisions and Applicable Regulations

- a. The "affected corn mill" for the purpose of these unit-specific conditions, is the equipment listed in Condition 7.3.1 and 7.3.2.
- b. The affected corn mill is subject to the emission limits identified in Condition 5.2.2.

- c. The affected corn mill's emission units that were constructed prior to April 14, 1972 and not modified thereafter are subject to 35 IAC 212.322(a), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (See also Attachment 10.3) [35 IAC 212.322(a)].

- d. The affected corn mill's process emission units constructed or modified on or after April 14, 1972 are subject to 35 IAC 212.321(a), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (See also Attachment 10.2) [35 IAC 212.321(a)].

- e. The affected corn mill is subject to 35 IAC 214.301, which provides that:

No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2,000 ppm [35 IAC 214.301].

- f. i. The affected corn mill is subject to 35 IAC 215.301, which provides that:

No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 215.302, 215.303, or 215.304 and the following exemption: If no odor nuisance exists the limitation of 35 IAC 215 Subpart G shall only apply to photochemically reactive material [35 IAC 215.301].

- ii. Emissions of organic material in excess of those permitted by 35 IAC 215.301 are

allowable if such emissions are controlled as follows: [35 IAC 215.302]

Flame, thermal or catalytic incineration so as either to reduce such emissions to 10 ppm equivalent methane (molecular weight 16) or less, or to convert 85 percent of the hydrocarbons to carbon dioxide and water; or, [35 IAC 215.302(a)]

- g. The affected emission units constructed or modified after January 5, 1981 are subject to the New Source Performance Standard (NSPS) for Equipment Leaks of Volatile Organic Compounds in the Synthetic Organic Chemical Manufacturing Industry, 40 CFR 60, Subparts A and VV.
- h. The affected emission units constructed or modified before or on January 5, 1981 are subject to 35 IAC 215 Subpart Q - Leaks from Synthetic Organic Chemical and Polymer Manufacturing Equipment.

7.3.4 Non-Applicability of Regulations of Concern

- a. The affected fermentation process is not subject to 40 CFR Part 60 Subparts NNN and RRR based on the exemption of the creation of ethanol by biological synthesis from the scope of these standards.

7.3.5 Operational and Production Limits and Work Practices

- a. The following requirements of 40 CFR Part 60 Subpart VV shall be implemented:
 - i. Pumps in light liquid service [40 CFR 60.482-2];
 - ii. Compressors [40 CFR 60.482-3];
 - iii. Pressure relief devices in gas/vapor service [40 CFR 60.482-4];
 - iv. Sampling connection systems [40 CFR 60.482-5];
 - v. Open-ended valves or lines [40 CFR 60.482-6];
 - vi. Valves in gas/vapor service in light liquid service [40 CFR 60.482-7];
 - vii. Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors [40 CFR 60.482-8];
 - viii. Delay of repair [40 CFR 60.482-9]; and

- ix. Closed vent systems and control devices [40 CFR 60.482-10]

7.3.6 Emission Limitations

- c. Emissions from the affected RTOs (one for the CO₂ scrubber exhaust and one for the feed dryer exhaust) shall not exceed the following limits. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total)
 - i. The only fuel fired in the RTOs shall be natural gas, as defined in 40 CFR 60.41(b).
 - ii. The maximum firing rate of each RTO shall not exceed 15 million Btu per hour.
 - iii. A. Emissions of nitrogen oxides (NO_x) attributable to the RTOs shall not exceed 7.3 pounds per hour and 32 tons per year, combined.

B. Emissions of carbon monoxide (CO) attributable to the RTOs shall not exceed 18.2 pounds per hour and 80 tons per year, combined.

The above limitations were established in Permit 00090054, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD) [T1].

7.3.7 Testing Requirements

- a. Within 90 days of a written request from the Illinois EPA, the Permittee shall perform emissions tests specified by the Illinois EPA. [35 IAC 201.282] The Illinois EPA may provide additional time for the performance on these tests upon written request by the Permittee.

7.3.8 Inspection Requirements

- a. The Permittee shall perform the applicable testing as specified in 40 CFR 60.485 - Test methods and procedures.
- b. The Permittee shall implement all applicable inspection programs as specified in 35 IAC 215 Subpart Q.

7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected corn mill to demonstrate compliance with Conditions 5.5.1 and 7.3.6, pursuant to Section 39.5(7) (b) of the Act:

- a. Bushels of grain processed, daily.
- b. Production of still house in gallons per day.
- c. The Permittee shall keep all applicable records as specified in 40 CFR 60.486 - Recordkeeping requirements.
- d. The Permittee shall keep all applicable records as specified in 35 IAC 215 Subpart Q.
- e. Emissions of VOM, PM and PM₁₀ from the affected corn mill in tons/month and tons/year.

7.3.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected corn mill with the permit requirements as follows, pursuant to Section 39.5(7) (f) (ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:
 - i. Emissions from or operation of the affected corn mill in excess of the limits specified in Conditions 5.5.1, 7.1.3, 7.1.5 and 7.3.6 within 30 days of such occurrence.
- b. The Permittee shall submit all applicable reports as specified in 40 CFR 60.487 - Reporting requirements.
- c. The Permittee shall submit all applicable reports as specified in 35 IAC 215 Subpart Q.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.3.12 Compliance Procedures

- a. Compliance with Conditions 5.5.1, 7.3.3 and 7.3.6, PM and VOM emissions from the affected corn mill shall be calculated based on:

- i. The applicable emission factors for corn wet milling, Tables 9.9.7-1 and 9.9.7-2, AP-42, Volume I, Fifth Edition, January 1995, or current edition, or
- ii. The results of emission test(s) on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Agency.
- iii. The applicable emission factors for yeast production, Table 9.13.4-1, AP-42, Volume I, Fifth Edition, January 1995, or current edition.

7.3.13 Compliance Schedules

- a. The Permittee shall comply with applicable requirements of the Consent Decree, United States v. Archer Daniels Midland Company, Civil Action No. 03-2066 for the affected corn mill, including provisions in the Control Technology Plan for Peoria prepared and maintained pursuant to the Consent Decree (See Attachment 10.1 for a copy of the Control Technology Plan effective when this permit was issued).
- b. The Permittee shall apply for revision of this permit to address new requirements that become applicable pursuant to the Consent Decree. For this purpose, the Permittee shall promptly apply for revision of this permit after emission testing has been completed for each new control device required pursuant to the Consent Decree or the Permittee has implemented other significant measures to reduce emissions as required by the Consent Decree.
- c. With such revisions, the Permittee shall propose new operating and emission limitations to replace those set in prior construction permits for the affected feed mill, as listed below. [See also Condition 5.10(c)]
 - i. Limitations for the affected corn mill established in Construction Permit 94090059.
- d. Until the CAAPP permit is revised to fully address such units, the Permittee shall operate existing control equipment in accordance with good air pollution control practice to minimize emissions.

7.4 Feed House

7.4.1 Description

The stillage from the Still House, which is high in solids, is dewatered and dried to produce cattle feed. Syrup from the evaporation is combined with the fiber at various points in the drying process. The dried feed is cooled and conveyed either to feed loadout or to the pellet mill area where it is either palletized and cooled further in pellet coolers or simply bypasses the pellet mills and cooled further in the pellet coolers. Both pellets and fine DDGs are loaded out via barrage, truck and rail.

7.4.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Feed Dryers 1 - 7	Drying of Feed	Scrubbers and Afterburner
Feed Coolers 1-7, A, B	Cooling of Feed	Scrubber
Truck Feed Loadout	Truck Loading of Distillers Dried Grain	Baghouse
Pellet Coolers	Cooling of Distillers Dried Grain	Cyclone
Pellet Handling	Conveying of Pellets	Baghouse
Pellet Loadout	Loading of Pellets and Distillers Dried Grain	Baghouse
Sharples (13)	Dewatering Of Beerstill Bottoms By Centrifugation	None
Rail Car Feed Loadout	Loadout of Distillers Dried Grain	Baghouse
Barge Feed Loadout	Loadout of Distillers Dried Grain	Baghouse
Mixers	Mixing of Wet Feed	None
Hotwell	Collection of Condensate	None
Hammermills (2)	Hammermilling of Feed	Baghouse
Sharples 1-3 Wet Drag	Wet Feed Mixing	None
Sharples Effluent Tank	Wet Feed Processing	None

7.4.3 Applicability Provisions and Applicable Regulations

- a. The "affected feed house" for the purpose of these unit-specific conditions, is the equipment listed in Condition 7.4.1 and 7.4.2.

- b. The affected feed house is subject to the emission limits identified in Condition 5.2.2.
- c. The affected feed house's process emission units that were constructed prior to April 14, 1972 and not modified thereafter are subject to 35 IAC 212.322(a), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (See also Attachment 10.3) [35 IAC 212.322(a)].

- d. The affected feed house's process emission units constructed or modified on or after April 14, 1972 are subject to 35 IAC 212.321(a), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (See also Attachment 10.2) [35 IAC 212.321(a)].

7.4.4 Non-Applicability of Regulations of Concern

N/A

7.4.5 Operational and Production Limits and Work Practices

- a. Throughput of palletized feed through the pellet coolers shall not exceed 105 tons/hour and 919,800 tons/year.
- b. The feed dryers shall only be fired with natural gas or other gaseous fuel.
- c.
 - i. An ultrasonic flow monitoring device or equivalent device shall be installed, operated and maintained to verify the percentage of the feed dryer exhaust stream treated by an RTO.
 - ii. When the feed dryers are operating, the Permittee must either maintain the flow

through the affected RTO at a level equal to or greater than 54,000 scfm or limit the flow at the bypass to no more than 44,000 scfm.

- iii. The Permittee shall maintain an inventory of spare parts for the RTOs.
- iv. In the event of a malfunction or breakdown the Permittee shall make all reasonable attempts to correct the problem in a timely manner including but not limited to: calling in off shift, overtime and independent labor
- v. The RTOs' operating temperature shall remain above 1400°F.

For the packed tower for feed drying, the VOM scrubber for fermentation, VOM scrubbers for distillation, and RTOs written operating procedures shall be maintained and updated describing normal process and equipment operating parameters; monitoring or instrumentation for measuring control equipment operating parameters, if any; and control equipment inspection and maintenance practices. With respect to control equipment maintenance practices, the operating procedures may incorporate the manufacturers recommended operating instructions.

- vi. During an outage of the Feed Dryer RTO, the feed dryer operation will be decreased to 90% of its maximum permitted operating rate until the RTO is operational
- vii. In the event that the feed dryer gas must bypass the packed tower scrubber serving the feed dryers and/or an outage of the CO₂ scrubber the RTO may be bypassed in order to avoid severe damage to the control unit for a period not to exceed 8 hours for an outage of the packed tower scrubber or 24 hours for an outage of the CO₂ scrubber while repairs are attempted. During the repair period feed dryer operation shall be decreased to 90% of its maximum permitted operating rate. If repairs cannot be made within 8 hours for an outage of the packed tower scrubber or 24 hours for an outage of the CO₂ the feed dryer operation shall be reduced to 80% of its maximum permitted operating rate. This limitation will remain in effect until the gases can once again be routed through the scrubbers.

7.4.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected feed house is subject to the following:

- a. Emissions from the affected pellet coolers shall not exceed the following limits. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total)

Equipment	Exhaust Rate	PM Emissions			PM ₁₀ Emissions	
	(dscf/min)	(Grains/dscf)	(Lb/Hr)	(Ton/Yr)	(Lb/Hr)	(Ton/Yr)
Pellet Coolers	73,600 (18,400 Each)	0.00825	5.20	22.7	1.44	5.01
Pellet Handling/Conveying	7,000	0.0075	0.45	1.97	0.45	1.97

The above limitations were established in Permit 95030107, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD) [T1].

- b. Emissions from the affected RTOs (one for the CO₂ scrubber exhaust and one for the feed dryer exhaust) shall not exceed the following limits. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total)
- i. The only fuel fired in the RTOs shall be natural gas, as defined in 40 CFR 60.41(b).
- ii. The maximum firing rate of each RTO shall not exceed 15 million Btu per hour.
- iii. A. Emissions of nitrogen oxides (NO_x) attributable to the RTOs shall not exceed 7.3 pounds per hour and 32 tons per year, combined.
- B. Emissions of carbon monoxide (CO) attributable to the RTOs shall not exceed 18.2 pounds per hour and 80 tons per year, combined.

The above limitations were established in Permit 00090054, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD) [T1].

7.4.7 Testing Requirements

- a. Within 90 days of a written request from the Illinois EPA, the Permittee shall perform emissions and/or performance tests specified by the Illinois EPA. [35 IAC 201.282] The Illinois EPA may provide additional time for the performance on these tests upon written request by the Permittee.

7.4.8 Monitoring Requirements

None

7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected feed house to demonstrate compliance with Conditions 5.5.1 and 6.4.6, pursuant to Section 39.5(7)(b) of the Act:

- a. Pelletized feed production (ton/day, ton/month and ton/year)
- b. Status of operations and control systems, at least once a shift for each cooler/cyclone and at least once per day for the handling-conveying system/baghouse.
- c. Periods of times when a cooler or the handling/conveying system operates without control or without the control in proper condition, e.g., with visible emissions.
- d. Emissions of VOM, NO_x, CO, SO₂, PM and PM₁₀ from the affected feed house in tons/month and tons/year.

7.4.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected feed house with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:
 - i. Emissions from or operation of the affected feed house in excess of the limits specified in Conditions 5.5.1, 7.4.3, 7.4.5 and 7.4.6 within 30 days of such occurrence.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.4.12 Compliance Procedures

- a. Compliance with Conditions 5.5.1, 7.4.3, 7.4.6 and PM emissions from the affected feed house shall be calculated based on:
 - i. The results of emission test(s) on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Agency.

7.4.13 Consent Decree/Compliance Schedule

- a. The Permittee shall comply with applicable requirements of the Consent Decree, United States v. Archer Daniels Midland Company, Civil Action No. 03-2066 for the affected feed house, including provisions in the Control Technology Plan for Peoria prepared and maintained pursuant to the Consent Decree (See Attachment 10.1 for a copy of the Control Technology Plan effective when this permit was issued).
- b. The Permittee shall apply for revision of this permit to address new requirements that become applicable pursuant to the Consent Decree. For this purpose, the Permittee shall promptly apply for revision of this permit after emission testing has been completed for each new control device required pursuant to the Consent Decree or the Permittee has implemented other significant measures to reduce emissions as required by the Consent Decree.
- c. With such revisions, the Permittee shall propose new operating and emission limitations to replace those set in prior construction permits for the affected feed mill, as listed below. [See also Condition 5.10(c)]
 - i. Limitations for affected feed drying and affected feed cooling established in Construction Permit 94090059.
- d. Until the CAAPP permit is revised to fully address such units, the Permittee shall operate existing control equipment in accordance with good air pollution control practice to minimize emissions.

7.5 Still House

7.5.1 Description

Low proof alcohol from the fermenters is directed to the 190 proof distillation process. In this process, 190 proof alcohol, stillage and fusel oil are produced. 190 proof alcohol is transported either to the 200 proof dehydration process where the remaining 5% of water is removed, or to final distillation where beverage alcohol is produced. Distillation columns are vented through scrubbers to control VOM before exhausting to the atmosphere. Stillage undergoes first-stage dewatering in MR or waste heat evaporators and piped to the feed house.

7.5.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Beer Well	Process Storage of Beer Produced by Fermentation	None
Rectifiers 1 through 9, 20	Distillation of Ethanol	Vent Scrubbers
Scrubbers/ Old Stills	Distillation of Ethanol	None
NP 101 Thin Stillage Tank	Storage of Stillage	None
NP 105 Whole Stillage Tank	Storage of Stillage	None
NP 106 Alcohol	Storage of 190 Proof Alcohol	None
NP 109 Alcohol	Storage of 190 Proof Alcohol	None
NP 110 Nitrogen Scrubber Feed Tank	Storage of 200 Proof Alcohol	Scrubber
NP 111 Fusel Oil Tank	Fusel Oil Storage Tank	None
NP 112 MR Tank	Storage of Stillage	None
NP 113 Fusel Oil Tank	Fusel oil Storage Tank	None
NP 115 Alcohol	200 Proof Ethanol Storage Tank	Scrubber
Hi Wines Tank 1 through 18	Ethanol Storage Tank	None
Q House Tank 21 through 27	Ethanol Storage Tank	None
Distillation Column #9	Distillation Column	Scrubber
Beverage Alcohol Storage Tanks	Four Beverage Alcohol Tanks	Floating Roof

Emission Unit	Description	Emission Control Equipment
Molecular Sieve		
Grits Columns	Three Grits Columns	Vent Scrubber

7.5.3 Applicability Provisions and Applicable Regulations

- a. The "affected still house" for the purpose of these unit-specific conditions, is the equipment listed in Condition 7.5.1 and 7.5.2.
- b. The affected still house is subject to the emission limits identified in Condition 5.2.2.
- c. The affected still house is subject to 35 IAC 215.301, which provides that:

No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 215.302, 215.303, or 215.304 and the following exemption: If no odor nuisance exists the limitation of 35 IAC 215 Subpart G shall only apply to photochemically reactive material [35 IAC 215.301].

7.5.4 Non-Applicability of Regulations of Concern

- a. The affected distillation process is not subject to 40 CFR Part 60 Subparts NNN and RRR based on the exemption of the creation of ethanol by biological synthesis from the scope of these standards.

7.5.5 Operational and Production Limits and Work Practices

- a. Vent scrubbers shall be maintained and operated on the vents of distillation columns and grits columns (water removal), which shall achieve at least 98% control efficiency for VOM.
- b. The 190 proof storage tank shall be vented through the existing CO₂ scrubber, which shall provide at least 95% control of VOM emissions from this storage tank at all times.

7.5.6 Emission Limitations

None (See also Condition 7.5.13)

7.5.7 Testing Requirements

- a. Within 90 days of a written request from the Illinois EPA, the Permittee shall perform emissions and/or performance tests specified by the Illinois EPA. [40

CFR 60.8(a) and 35 IAC 201.282] The Illinois EPA may provide additional time for the performance on these tests upon written request by the Permittee.

7.5.8 Monitoring Requirements

None

7.5.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected still house to demonstrate compliance with Conditions 5.5.1 and 7.5.6, pursuant to Section 39.5(7)(b) of the Act:

- a. Alcohol production, in gallons, for the distillation column #9 and the grits distillation system on a monthly basis.
- b. Hours of operation, including downtime for each dryer.
- c. Feed rate, e.g. total whole stillage flow rate to centrifuges prior to dryers, daily.
- d. Fuel consumption of the dryers.
- e. Operation of the control system for the feed dryers, including:
 - i. Scrubbant quality, e.g., % total solids once per day.
 - ii. Scrubbant flow; and pressure drop at least once per shift; and
 - iii. Other key operating parameters for the packed tower scrubber.
- f. Daily beverage alcohol production.
- g. Emissions of VOM from the affected still house in tons/month and tons/year.

7.5.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected still house with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- i. Emissions from or operation of the affected still house in excess of the limits specified in Conditions 5.5.1, 7.5.3, 7.5.5 and 7.5.6 within 30 days of such occurrence.

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.5.12 Compliance Procedures

- a. Compliance with Conditions 5.5.1, 7.5.3 and 7.5.6 and VOM emissions from the affected still house shall be calculated based on:
 - i. The emission factors from the latest emissions test that have been approved by the Illinois EPA.

7.5.13 Consent Decree/Compliance Schedule

- a. The Permittee shall comply with applicable requirements of the Consent Decree, United States v. Archer Daniels Midland Company, Civil Action No. 03-2066 for the affected still house, including provisions in the Control Technology Plan for Peoria prepared and maintained pursuant to the Consent Decree (See Attachment 10.1 for a copy of the Control Technology Plan effective when this permit was issued).
- b. The Permittee shall apply for revision of this permit to address new requirements that become applicable pursuant to the Consent Decree. For this purpose, the Permittee shall promptly apply for revision of this permit after emission testing has been completed for each new control device required pursuant to the Consent Decree or the Permittee has implemented other significant measures to reduce emissions as required by the Consent Decree.
- c. With such revisions, the Permittee shall propose new operating and emission limitations to replace those set in prior construction permits for the affected feed mill, as listed below. [See also Condition 5.10(c)]
 - i. Limitations for affected feed drying and affected feed cooling established in Construction Permits 97090038, 94090059 and 93040078.

- d. Until the CAAPP permit is revised to fully address such units, the Permittee shall operate existing control equipment in accordance with good air pollution control practice to minimize emissions.

7.6 Storage Tanks

7.6.1 Description

There are several storage tanks which hold alcohols of various proofs, fusel oil and denaturant.

7.6.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
NS 101, 102, 103 & 104 Alcohol Tanks	Alcohol Storage Tanks	None
NS 105 & 106 Alcohol Tanks	Alcohol Storage Tanks	Floating Roofs
NS 107 Alcohol Tank	Alcohol Storage Tank	Floating Roof
Denaturant Storage Tanks	Seven Denaturant Storage Tanks	None

7.6.3 Applicability Provisions and Applicable Regulations

- a. The "affected storage tanks" for the purpose of these unit-specific conditions, is the equipment listed in Condition 7.6.1 and 7.6.2.
- b. The affected storage tanks are subject to the emission limits identified in Condition 5.2.2.
- c. The affected storage tanks are subject to 35 IAC 215.121, which provides that:

No person shall cause or allow the storage of any volatile organic liquid with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F) or any gaseous organic material in any stationary tank, reservoir or other container of more than 151 cubic meters (40,000 gal) capacity unless such tank, reservoir or other container: [35 IAC 215.121]

- i. Is a pressure tank capable of withstanding the vapor pressure of such liquid or the pressure of the gas, so as to prevent vapor or gas loss to the atmosphere at all times; or, [35 IAC 215.121(a)]
- ii. Is designed and equipped with one of the following vapor loss control devices: [35 IAC 215.121(b)]
 - A. A floating roof which rests on the surface of the volatile organic liquid and is equipped with a closure seal or seals between the roof edge and the tank

wall. Such floating roof shall not be permitted if the volatile organic liquid has a vapor pressure of 86.19 kPa (12.5 psia) or greater at 294.3 K (70 F). No person shall cause or allow the emission of air contaminants into the atmosphere from any gauging or sampling devices attached to such tanks, except during sampling or maintenance operations. [35 IAC 215.121(b) (1)]

B. A vapor recovery system consisting of:
[35 IAC 215.121(b) (2)]

1. A vapor gathering system capable of collecting 85% or more of the uncontrolled volatile organic material that would be otherwise emitted to the atmosphere; and,
[35 IAC 215.121(b) (2) (A)]

2. A vapor disposal system capable of processing such volatile organic material so as to prevent its emission to the atmosphere. No person shall cause or allow the emission of air contaminants into the atmosphere from any gauging or sampling devices attached to such tank, reservoir or other container except during sampling. [35 IAC 215.121(b) (2) (B)]

C. Other equipment or means of equal efficiency approved by the Agency according to the provisions of 35 IAC 201. [35 IAC 215.121(b) (3)]

d. The affected storage tanks are subject to the applicable requirements of 40 CFR Part 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction or Modification Commenced after July 23, 1984.

7.6.4 Non-Applicability of Regulations of Concern

N/A

7.6.5 Operational and Production Limits and Work Practices

None

7.6.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected alcohol storage tanks subject to the following:

- a. Emissions of VOM from the following affected storage tanks, which store denaturant, shall not exceed 6.65 tons/year, total. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total)

Tank and Size (Gallons)	Current Service
TERT2 5,700	Butyl Alcohol
MEOH2 5,700	Methyl Alcohol
IPA2 5,700	Isopropyl
ETOH2 5,700	Ethanol/Brucine
ETOH3 5,700	Ethanol/Brucine
ETOH4 5,700	Ethanol/Bitrex
Petrolite 3,000	Naphtha

The above limitations were established in Permit 97060109, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD) [T1R].

- b. Emissions of VOM from affected storage tank NS107 shall not exceed 5.0 tons/year. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total)

The above limitations were established in Permit 93040078, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD) [T1].

7.6.7 Testing Requirements

None

7.6.8 Monitoring Requirements

None

7.6.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected storage tanks to demonstrate compliance with Conditions 5.5.1 and 7.6.6, pursuant to Section 39.5(7)(b) of the Act:

- a. Throughput of each affected storage tank in gallons/month and gallons/year.
- b. Emissions of VOM from the affected storage tanks in tons/month and tons/year.

7.6.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, of deviations of the affected storage tanks with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. Emissions from or operation of the affected alcohol storage tanks in excess of the limits specified in Conditions 5.5.1, 7.6.3 and 7.6.6 within 30 days of such occurrence.

7.6.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.6.12 Compliance Procedures

- a. For the purpose of estimating VOM emissions from storage tanks, the most current version of the USEPA TANKS program is acceptable.

7.7 Bottling

7.7.1 Description

Plastic bottles are manufactured and stored on-site.

7.7.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Plastic Pellet Conveyance	Conveyance of plastic pellets to bottle preform manufacturing	Filter
Plastic Pellet Drying	Removal of moisture from plastic pellets	None
Plastic Resin Silos	Resin storage	None

7.7.3 Applicability Provisions and Applicable Regulations

- a. The "affected bottling process" for the purpose of these unit-specific conditions, is the equipment listed in Condition 7.7.1 and 7.7.2.
- b. The affected bottling process is subject to the emission limits identified in Condition 5.2.2.
- c. The affected bottling process is subject to 35 IAC 212.321(a), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (See also Attachment 10.2) [35 IAC 212.321(a)].

7.7.4 Non-Applicability of Regulations of Concern

N/A

7.7.5 Operational and Production Limits and Work Practices

None

7.7.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected bottling process subject to the following:

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.7.7 Testing Requirements

- a. Within 90 days of a written request from the Illinois EPA, the Permittee shall perform emissions and/or performance tests specified by the Illinois EPA. [35 IAC 201.282] The Illinois EPA may provide additional time for the performance on these tests upon written request by the Permittee.

7.7.8 Monitoring Requirements

None

7.7.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected bottling process to demonstrate compliance with Conditions 5.5.1 and 7.7.6, pursuant to Section 39.5(7)(b) of the Act:

- a. Maximum PM emissions from the affected bottling process in lb/day, based on maximum operating rates, which record shall be revised if the production rate is increased.

7.7.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected bottling process with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:
 - i. Emissions from or operation of the affected bottling process in excess of the limits specified in Conditions 5.5.1, 7.7.3, 7.7.5 and 7.7.6 within 30 days of such occurrence.

7.7.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.7.12 Compliance Procedures

- a. Compliance with Condition 7.7.3(c) shall be determined using the Recordkeeping Requirements in Condition 7.7.9.

7.8 Loadout

7.8.1 Description

Alcohol is loaded out at various points at the facility. Alcohol may be loaded out to truck, railcars or barges. The unloading of gasoline into storage tanks is also included in this process area. All unloading and loading processes utilize submerged fill or equivalent techniques to control VOM emissions.

7.8.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Fuel Alcohol Truck (Motor Pool)	Truck Loading of Alcohol	Submerged Loading
Fuel Alcohol Truck (Tank Farm)	Truck Loading of Alcohol	Submerged Loading
Fuel/ Beverage Alcohol (Barge)	Barge Loading of Beverage alcohol	Submerged Loading
Fuel/Beverage Alcohol (Rail Car)	Rail Car Loading of Beverage Alcohol	Submerged Loading
Cistern Tank -19	Processing tank	None
Cistern tanks C/9-18	Processing tank	None
Cistern Tanks C/3-8	Processing tank	None
Fusel oil tanks at Cistern Bldg.		
Unleaded Gasoline Tanks 1 & 2	39,000 Gallon Underground Gasoline Storage Tanks	Submerged Loading
55 gallon drum loading	Loading of 55 gal drums	None
Unleaded gasoline tank	Vehicle refueling	None
Diesel Fuel tank	Vehicle and equipment fueling	None

7.8.3 Applicability Provisions and Applicable Regulations

- a. The "affected loadout process" for the purpose of these unit-specific conditions, is the equipment listed in Condition 7.8.1 and 7.8.2.
- b. The affected loadout process is subject to the emission limits identified in Condition 5.2.2.

- c. The affected loadout process is subject to 35 IAC 215.122, which provides that:
 - i. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere during the loading of any organic material from the aggregate loading pipes of any loading facility having through-put of greater than 151 cubic meters per day (40,000 gal/day) into any railroad tank car, tank truck or trailer unless such loading facility is equipped with submerged loading pipes, submerged fill, or a device that is equally effective in controlling emissions and is approved by the Agency according to the provisions of 35 IAC 201. [35 IAC 215.122(a)]
 - ii. No person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 l (250 gal), unless such tank is equipped with a permanent submerged loading pipe, submerged fill, or an equivalent device approved by the Agency according to the provisions of 35 IAC 201 or unless such tank is a pressure tank as described in Section 215.121(a) or is fitted with a recovery system as described in 35 IAC 215.121(b) (2). [35 IAC 215.122(b)]
 - iii. Exception: If no odor nuisance exists the limitations of this Section shall only apply to the loading of volatile organic liquid with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F). [35 IAC 215.122(c)]

7.8.4 Non-Applicability of Regulations of Concern

N/A

7.8.5 Operational and Production Limits and Work Practices

- a. Loadout shall be performed with submerged fill pipes into clean tanks or in normal dedication service tanks.

7.8.6 Emission Limitations

None (See also Condition 7.8.13)

7.8.7 Testing Requirements

- a. Within 90 days of a written request from the Illinois EPA, the Permittee shall perform emissions and/or performance tests specified by the Illinois EPA. [40 CFR 60.8(a) and 35 IAC 201.282] The Illinois EPA may provide additional time for the performance on these tests upon written request by the Permittee.

7.8.8 Monitoring Requirements

None

7.8.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected loadout process to demonstrate compliance with Condition 5.5.1 and 7.8.6, pursuant to Section 39.5(7)(b) of the Act:

- a. Total throughput of alcohol, beverage alcohol and denaturant in gallons/month and gallons/year.
- b. Gasoline throughput in gallons/month and gallons/year.
- c. Emissions of VOM from the affected loadout processes in tons/month and tons/year.

7.8.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected loadout process with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. Emissions from or operation of the affected loadout process in excess of the limits specified in Conditions 5.5.1, 7.8.3 and 7.8.5 within 30 days of such occurrence.

7.8.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.8.12 Compliance Procedures

- a. Compliance with Condition 7.8.6 shall be determined using the most current version of the USEPA's AP-42 TANKS program.

7.8.13 Compliance Schedules

- a. The Permittee shall comply with applicable requirements of the Consent Decree, United States v. Archer Daniels Midland Company, Civil Action No. 03-2066 for the affected loadout processes, including provisions in the Control Technology Plan for Peoria prepared and maintained pursuant to the Consent Decree (See Attachment 10.1 for a copy of the Control Technology Plan effective when this permit was issued).
- b. The Permittee shall apply for revision of this permit to address new requirements that become applicable pursuant to the Consent Decree. For this purpose, the Permittee shall promptly apply for revision of this permit after emission testing has been completed for each new control device required pursuant to the Consent Decree or the Permittee has implemented other significant measures to reduce emissions as required by the Consent Decree.
- c. With such revisions, the Permittee shall propose new operating and emission limitations to replace those set in prior construction permits for the affected feed mill, as listed below. [See also Condition 5.10(c)]
 - i. Limitations for affected feed drying and affected feed cooling established in Construction Permit 83110040.
- d. Until the CAAPP permit is revised to fully address such units, the Permittee shall operate existing control equipment in accordance with good air pollution control practice to minimize emissions.

7.9 Powerhouse

7.9.1 Description

There are nine boilers that generate steam for the facility. Boilers 1 through 3 are coal-fired boilers. Two electrostatic precipitators control particulate matter emissions. Boilers 4, 5, 9 (Old 6), 10 (Old 7), 11 and 12 are natural gas fired boilers. The facility also has three natural gas-fired turbines that produce both steam and electricity. Numbers 6, 7 and 8 are natural gas turbine generators (GTGs), which produce electricity (which is used on-site). The gases for turbines 6 & 7 are then passed through waste heat boilers where the remaining heat is recovered to produce additional process steam. Coal for the boilers is received by truck. The fly ash and bed ash from the coal boilers is collected and conveyed to the ash silos.

7.9.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Boiler 1	Coal Fired Boiler With Backup Natural Gas Rated at 187 mmBtu/Hr.	Electrostatic Precipitator
Boiler 2	Coal Fired Boiler With Backup Natural Gas Rated at 187 mmBtu/Hr	
Boiler 3	Coal Fired Boiler With Backup Natural Gas Rated at 250 mmBtu/Hr	Electrostatic Precipitator
Boiler 4	Natural Gas Fired Boiler Rated at 108 mmBtu/Hr	None
Boiler 5	Natural Gas Fired Boiler Rated at 250 mmBtu/Hr	None
Turbine 6	Natural Gas Fired Turbine Rated at 230 mmBtu/Hr With a Waste Heat Boiler	Steam Injection
Turbine 7	Natural Gas Fired Turbine Rated at 230 mmBtu/Hr With a Waste Heat Boiler	Steam Injection
Turbine 8	Natural Gas Fired Turbine Rated at 230 mmBtu/Hr	Steam Injection
Boiler 9 (Old 6)	Natural Gas Fired Boiler Rated at 108 mmBtu/Hr	None

Emission Unit	Description	Emission Control Equipment
Boiler 10 (Old 7)	Natural Gas Fired Boiler Rated at 207 mmBtu/Hr	None
Boiler 11	Natural Gas Fired Boiler Rated at 207 mmBtu/Hr	None
Boiler 12	Natural Gas Fired Boiler Rated at 200 mmBtu/Hr	None
Coal Unloading	Truck unloading of coal	Water spray
Coal Storage	Storage of coal	
Flyash Silo	Storage of flyash	Baghouse
Lime & Soda Ash Mixing	Boiler water treatment	None

7.9.3 Applicability Provisions and Applicable Regulations

- a. The "affected boilers" for the purpose of these unit-specific conditions, are the boilers and turbines described in Condition 7.9.1 and 7.9.2.
- b. The affected units are subject to the emission limits identified in Condition 5.2.2.
- c. i. The affected boilers 1, 2 and 3 shall comply with 35 IAC 212.202, which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere from any fuel combustion emission unit for which construction or modification commenced prior to April 14, 1972, using solid fuel exclusively, which is located outside the Chicago major metropolitan area, to exceed the allowable emission standard determined by the equation below: [35 IAC 212.202].

$$S = 5.18 (H)^{-0.715}$$

Where:

S = Allowable emission standard in lbs/mmBtu

H = Actual heat input in mmBtu

- ii. For the purpose of Boilers 1 and 2, heat input shall be determined as the average heat input of the two boilers when both boilers are operating.

- d. The affected boilers 1, 2 and 3 shall comply with 35 IAC 214.141(b), which provides that:

Existing industrial fuel combustion emission units, not equipped with flue gas desulfurization systems as of December 1, 1980, located in the Peoria major metropolitan area, shall not exceed 5.5 pounds of sulfur dioxide per mmBtu of actual heat input (2,365 nanograms per joule) in any one hour period, provided the emissions from any such source located in the City of Peoria exit from a stack which is at least 154 feet (47 meters) in height.

- e. The affected boilers are subject to 35 IAC 216.121, which provides that:

No person shall cause or allow the emission of carbon monoxide into the atmosphere from any fuel combustion emission unit with actual heat input greater than 2.9 MW (10 mmBtu/hr) to exceed 200 parts per million, corrected to 50 percent excess air [35 IAC 216.121].

- f. The affected boiler 3 is subject to 35 IAC 217.121, which provides that:

No person shall cause or allow the emission of nitrogen oxides (NO_x) into the atmosphere in any one hour period from any new fuel combustion emission source with an actual heat input equal to or greater than 73.2 MW (250 MBtu/hr) to exceed the following standards and limitations: [35 IAC 217.121]

- i. For gaseous fossil fuel firing, 0.310 kg/MW-hr (0.20 lbs/MBtu) of actual heat input; [35 IAC 217.121(a)]
- ii. For solid fossil fuel firing, 1.08 kg/MW-hr (0.7 lbs./MBtu) of actual heat input; [35 IAC 217.121(d)]
- iii. For fuel combustion emission sources burning simultaneously any combination of solid, liquid and gaseous fossil fuels, an allowable emission rate shall be determined by the following equation: [35 IAC 217.121(e)]

$$E = (AG + BL + CS) Q$$

Where:

E = Allowable nitrogen oxides emissions rate

Q = Actual heat input derived from all fossil fuels

G = Percent of actual heat input derived from gaseous fossil fuel

L = Percent of actual heat input derived from liquid fossil fuel

S = Percent of actual heat input derived from solid fossil fuel

$$G + L + S = 100.0$$

and, where A, B, C and appropriate metric and English units are determined from the following table:

	Metric	English
E	kg/hr	lbs/hr
Q	MW	hr/hr
A	0.023	0.003
B	0.023	0.003
C	0.053	0.007

- g. The affected boilers 10, 11 and 12 are subject to the Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units, 40 CFR 60, Subparts A and Db, which includes:

- i. The emission of nitrogen oxides (NO_x) into the atmosphere from affected boilers 11 and 12, including during periods of startup, malfunction and breakdown, shall not exceed 0.2 lb/hr for high heat release. [40 CFR 60.44b(a) (1) (i)]

- h. Malfunction and Breakdown Provisions

In the event of a malfunction or breakdown of a an affected boilers, the Permittee is authorized to continue operation of affected boilers 1, 2 and 3 in violation of the applicable requirement of 35 IAC 212.202, as necessary to prevent risk of injury to personnel or severe damage to equipment. This authorization is subject to the following requirements:

- i. Operation is allowed during malfunction and breakdown provided that if the malfunction or breakdown cannot be fixed within six (6) hours, the affected boilers will be switched to natural gas.

- ii. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 7.9.9(g) and 7.9.10(c).

- i. Startup Provisions

The Permittee is authorized to operate affected boilers 1 or 2 and 3 in violation of the applicable limit of 35 IAC Part 212 during startup pursuant to 35 IAC 201.262, as the Permittee has affirmatively demonstrated that all reasonable efforts have been made to minimize startup emissions, duration of individual starts, and frequency of startups. This authorization is subject to the following:

- i. This authorization only extends for a period of up to 16-hours following initial firing of fuel during each startup event.
 - ii. The Permittee shall take the following measures to minimize startup emissions, the duration of startups, and minimize the frequency of startups:
 - A. Implementation of established startup procedures, and
 - B. Operating the affected boilers to control emissions during a start-up event in a manner consistent with good air pollution control practice for minimizing emissions.
 - iii. The Permittee shall fulfill the applicable recordkeeping requirements of Condition 7.1.9(a).
- j. The affected turbines are subject to 35 IAC 214.301, which provides that:

No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2,000 ppm [35 IAC 214.301].

7.9.4 Non-Applicability of Regulations of Concern

- a. The affected boilers are not subject to the New Source Performance Standards (NSPS) Fossil- Fuel-Fired Steam Generators, 40 CFR Part 60, Subpart D, because each affected boiler has a firing rate less than or equal to 250 mmBtu/hr.
- b. Affected boilers 1, 2 and 3 are not subject to the continuous monitoring requirements of 35 IAC 201,

Subpart L, because each affected boiler has a firing rate less than or equal to 250 mmBtu/hr.

- c. The affected boilers are not subject to the requirements of 35 IAC Part, 217, Subpart U "NO_x, Control and Trading Program For Specified NO_x Generating Units" because the maximum design heat input for each affected boiler is not greater than 250 mmBtu/hr.
- d. This permit is issued based on the boilers being high-heat release rate boilers, as defined at 40 CFR 60.41b so that the boilers are not subject to the NSPS limits for low-heat release boilers.
- e. This permit is issued based on Boiler 3 not being subject to 35 IAC 212.122 because its heat input does not exceed 250 mmBtu/hr.

7.9.5 Operational and Production Limits and Work Practices

- a. Natural gas usage in boiler 12 shall not exceed 1752 million cubic feet per year.
- b. Natural gas shall be the only fuel fired in affected boilers 4, 5, 9, 10, 11 and 12
- c. Natural gas shall be the only fuel fired in affected turbines.

7.9.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected units are subject to the following:

- a. Emissions of SO₂ from affected boiler 9 shall be less than 40 tons per year. Compliance with this limit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total)

The above limitation was established in Permit 87110032, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD) [T1].

- b. Emissions from affected boiler 10 shall not exceed the following limits. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total)

Pollutant	(Lb/mmBtu)	Emissions	
		(Lb/Hr)	(Tons/Yr)
NO _x	0.20*	---	87.6
CO	0.05	10.0	43.8

* 30 day rolling average, consistent with applicable NSPS.

Total NO_x emissions from boilers 1, 2, 3, 4, 5, 9 and 10 shall not exceed 1863.6 tons per year. Compliance with this limit shall be determined from a running total of 365 days of daily NO_x emission data.

The above limitations contain revisions to previously issued Permit 93080039. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this aforementioned permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this permit does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, the pound per hour limit for NO_x was replaced with a limit on pounds per million Btu, based on a 30 day rolling average [TlR].

- c. i. Emissions from affected boiler 11 shall not exceed the following limits. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total)

Pollutant	(Lb/mmBtu)	(Lb/Hr)	(Tons/Yr)
NO _x	0.20*	----	90.7
CO	0.06	12.4	54.3

* 30 day rolling average, consistent with applicable NSPS.

Total NO_x emissions from boilers 1, 2, 3, 4, 5, 9, 10 and 11 shall not exceed 1954.3 tons per year. Compliance with this limit shall be determined from a running total of 365 days of daily NO_x emission data.

The above limitations contain revisions to previously issued Permit 94120080. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this aforementioned permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this permit does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, the pound per hour limit for NO_x was replaced with a limit on pounds per million Btu, based on a 30 day rolling average [T1R].

- ii. NO_x Emissions from the affected boilers shall not exceed the following limits. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total)

Boiler	(Lb/mmBtu)	(Lb/Hr)	(Tons/Yr)
1 & 2	0.70	----	819
3	0.70	----	548
4	0.20	21.6	95
5	0.20	50.0	219
9	0.20	21.6	95

The above limitations were established in Permit 94120080 [T1].

- d. Emissions from affected boiler 12 shall not exceed the following limits. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

Pollutant	Emissions	
	(Lb/Hr)	(Tons/Yr)
NO _x	---	39.9
CO	8.0	35.0
PM	0.6	2.6

Pollutant	Emissions (Lb/mmBtu)
NO _x	0.20*

* 30 day rolling average, consistent with applicable NSPS.

The above limitations contain revisions to previously issued Permit 95110113. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this aforementioned permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this permit does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, the pound per hour limit for NO_x was replaced with a limit on pounds per million Btu, based on a 30 day rolling average [T1R].

7.9.7 Testing Requirements

- a. Pursuant to 35 IAC 212.110 and Section 39.5(7)(b) of the Act, testing for PM emissions shall be performed as follows:
 - i. Measurement of particulate matter emissions from stationary emission units subject to 35 IAC Part 212 shall be conducted in accordance with 40 CFR part 60, Appendix A, Methods 5, 5A, 5D, or 5E [35 IAC 212.110(a)].
 - ii. The volumetric flow rate and gas velocity shall be determined in accordance with 40 CFR part 60, Appendix A, Methods 1, 1A, 2, 2A, 2C, 2D, 3, and 4 [35 IAC 212.110(b)].
 - iii. Upon a written notification by the Illinois EPA, the Permittee shall conduct the applicable testing for particulate matter emissions from the affected coal-fired boiler, at its expense, to demonstrate compliance. Such test results shall be submitted to the

Illinois EPA within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Illinois EPA [35 IAC 212.110(c)].

- b. Upon reasonable request by the Illinois EPA, pursuant to Section 39.5(7)(d) of the Act, the Permittee shall have measurements of opacity from the affected gas-fired boilers or turbines conducted in accordance with Method 9, 40 CFR Part 60, Appendix A, and 35 IAC 212.109, to demonstrate compliance.
- c. Pursuant to 35 IAC 214.101(d) the Permittee shall demonstrate compliance or non-compliance with Condition 7.9.3(d) (see also 35 IAC 214.141(b)) by either an analysis of calendar weekly composites of daily fuel samples or by compliance with 35 IAC 214.101(c), at the option of the plant. The specific ASTM procedures incorporated by reference in Section 214.104(c), shall be used for sulfur and heating value determinations.
 - i. For solid fuel sampling:
 - ASTM D-2234 (1989)
 - ASTM D-2013 (1986)
 - ii. For sulfur determinations:
 - ASTM D-3177 (1984)
 - ASTM D-2622 (1987)
 - ASTM D-3180 (1984)
 - ASTM D-4239 (1985)
 - iii. For heating value determinations:
 - ASTM D-2015 (1985)
 - ASTM D-3286 (1985)
- d. The Permittee shall collect daily grab samples of coal at the coal truck dump pit. A weekly composite of these grab samples shall be made by combining equal portions of the individual samples. This composite sample shall be submitted on a weekly basis to an analytical laboratory for analysis of coal sulfur content. The Permittee shall supply the Illinois EPA with results of these representative weekly coal analyses on a quarterly basis.

7.9.8 Monitoring Requirements

Pursuant to Section 39.5(7)(d) of the Act, the Permittee shall comply with the following requirements with respect to monitoring:

- a.
 - i. The Permittee shall maintain and operate continuous opacity monitoring systems on Boilers 1, 2 and 3. For each exceedance of Condition 7.9.3(b) (35 IAC 212.123), the reason for the exceedance shall be indicated. This data shall be submitted to the Illinois EPA semi-annually (see Condition 7.9.10(a)).
 - ii. Boilers 1, 2 and 3 shall be equipped with appropriate facilities for "Portable Monitoring". The Permittee shall provide the capability to perform such portable monitoring on these boilers.
 - iii. Continuous NO_x emissions monitoring shall be performed for a boiler if parametric relationships for the particular boiler cannot be established to reliably and accurately predict compliance with the NO_x limit. Such monitoring of NO_x shall be conducted in accordance with the provisions of 40 CFR 60.13, 40 CFR 60.48b and the applicable procedures of Appendix B.
- b. For Boilers 4, 5 and 9, the Permittee shall also comply with requirements of Condition 7.9.8(a) (ii) and (iii) above if compliance testing of NO_x emissions shows a NO_x emission rate in excess of 70% of the limit established in Condition 7.9.6(d).
- c. For Boilers 10 and 12, the Permittee shall conduct continuous emissions monitoring of NO_x in accordance with the provisions of 40 CFR 60.13 and 60.48b and the applicable procedures of Appendix B, pursuant to 40 CFR 60.48b.
- d. For Boiler 11, The Permittee shall conduct continuous emissions monitoring of NO_x and CO in accordance with the provisions of 40 CFR 60.13, 40 CFR 60.48b and the applicable procedures of Appendix B.
- e. For the gas turbines, the Permittee shall continuous monitoring of the steam to fuel ratio. This system shall be accurate to within 5 %.

7.9.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected units to demonstrate compliance with Conditions 5.5.1 and 7.9.6, pursuant to Section 39.5(7) (b) of the Act:

- a. Pursuant to 35 IAC 212.110(e) and Section 39.5(7)(e) of the Act, the Permittee shall retain records of all PM tests which are performed. These records shall be retained for at least five (5) years after the date a test is performed and shall include the following:
 - i. A file containing the design heat release of boilers, with support documentation;
 - ii. The date, place and time of sampling or measurements;
 - iii. The date(s) analyses were performed;
 - iv. The company or entity that performed the analyses;
 - v. The analytical techniques or methods used;
 - vi. The results of such analyses; and
 - vii. The operating conditions as existing at the time of sampling or measurement.
- b. Records addressing use of good operating practices for the Electrostatic Precipitators (ESP's):
 - i. Records for periodic inspection of the ESP's with date, individual performing the inspection, and nature of inspection; and
 - ii. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
- c. Each coal analysis that includes the sulfur content (weight percent) and heating value as determined from the procedures of Condition 7.9.7(c).
- d. Coal consumption in tons per month and tons per year.
- e. Natural gas consumption (mmscf/mo and mmscf/yr).
- f. Emissions of CO, NO_x, SO₂, VOM, PM, HCl and HF in tons per month and tons per year from each affected unit.
- g. Records for Malfunctions and Breakdowns

The Permittee shall maintain records, pursuant to 35 IAC 201.263, of continued operation of an affected boiler during malfunctions and breakdown of the control features of the affected boiler, which as a minimum, shall include:

 - i. Date and duration of malfunction or breakdown;

- ii. A detailed explanation of the malfunction or breakdown;
 - iii. An explanation why the damaged feature(s) could not be immediately repaired or the affected boiler removed from service without risk of injury to personnel or severe damage to equipment;
 - iv. The measures used to reduce the quantity of emissions and the duration of the event;
 - v. The steps taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity; and
 - vi. The amount of release above typical emissions during malfunction/breakdown.
- h. Records for Startup

The Permittee shall maintain the following records, pursuant to Section 39.5(7) (b) of the Act, for each affected coal-fired boiler subject to Condition 7.1.3(d), which at a minimum shall include:

- i. The following information for each startup of boiler:
 - A. Date and duration of the startup, i.e., start time and time normal operation achieved, i.e., stable operation at load;
 - B. If normal operation was not achieved within 16 hours, an explanation why startup could not be achieved;
 - C. A detailed description of the startup, including reason for operation and whether maintenance was performed;
 - D. An explanation why maintenance and other established startup procedures could not be performed, if not performed;
 - E. The nature of opacity, i.e., severity and duration, during the startup and the nature of opacity at the conclusion of startup, if above normal; and
 - F. Whether exceedance of Condition 5.2.2 may have occurred during startup, with explanation and estimated duration (minutes).

- ii. A maintenance and repair log for each boiler, listing each activity performed with date.

7.9.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, deviations of the affected units with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- i. A person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Illinois EPA of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the Illinois EPA. Such notification shall state the specific test methods from Condition 7.9.7(a) (see also 35 IAC 212.110) that will be used [35 IAC 212.110(d)].

- b. Emissions of CO, VOM, PM, SO₂ and NO_x from the affected boiler in excess of the limits specified in Condition 5.5.1, 5.9.3, 5.9.5 or 7.9.6.

- c. Reporting of Malfunctions and Breakdowns

The Permittee shall provide the following notification and reports to the Illinois EPA, Compliance Section and Regional Field Office, pursuant to 35 IAC 201.263, concerning continued operation of a affected coal-fired boiler subject to Condition 7.9.3(h) during malfunction or breakdown of the control features of the affected boiler.

- i. The Permittee shall notify the Illinois EPA's regional office by telephone as soon as possible during normal working hours, but no later than three (3) days, upon the occurrence of noncompliance due to malfunction or breakdown.
- ii. Upon achievement of compliance, the Permittee shall give a written follow-up notice to the Illinois EPA, Compliance Section and Regional Field Office, providing a detailed explanation of the event, an explanation why continued operation of the affected boiler was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected boiler was taken out of service.

- iii. If compliance is not achieved within 5 working days of the occurrence, the Permittee shall submit interim status reports to the Illinois EPA, Compliance Section and Regional Field Office, within 5 days of the occurrence and every 14 days thereafter, until compliance is achieved. These interim reports shall provide a brief explanation of the nature of the malfunction or breakdown, corrective actions accomplished to date, actions anticipated to occur with schedule, and the expected date on which repairs will be complete or the affected boiler will be taken out of service.

7.9.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.9.12 Compliance Procedures

Compliance with emission standards and limits shall be based on the recordkeeping requirements in Condition 7.9.9 and the emission factors and formulas listed below:

- a. Compliance with Condition 7.9.3(e) is assumed by the work-practices inherent in operation of the affected boilers.
- b. Compliance with Condition 7.9.3(d) is demonstrated by testing pursuant to Condition 7.9.7(c) and the equation listed below:

$$6.8 \text{ lb/mmBtu} \geq 18,050 (S) / (H)$$

Where:

S = Sulfur, weight %

H = Heating value, Btu/lb

- c. Emissions from the affected coal-fired boilers shall be calculated using appropriate emission factors derived from the most recent stack tests or the following emission factors if stack tests have not been performed:

<u>Pollutant</u>	<u>Emission Factor (lb/ton)</u>
SO ₂	38 (S)
PM	10A
NO _x	11*
CO	0.5
VOM	0.05
HCl	1.2
HF	0.15

- * This factor may be reduced up to 30% to account for the NO_x reduction achieved by over-fire air provided that the Permittee notifies the Illinois EPA of the reduction being claimed, accompanied by supporting documentation.

These are the emission factors for coal combustion in PC, dry bottom, wall fired bituminous pre-NSPS with low NO_x burner from Tables 1.1-3, 1.1-4, 1.1-15 and 1.1-19 of the USEPA Manual AP-42, Volume I, Fifth Edition, Supplement E, September 1998. S indicates that the weight % of sulfur in the coal should be multiplied by the value given. An additional 20-30% NO_x* reduction may be taken for overfire air.

Boiler Emissions (lb) = (Coal Consumption, ton) x (The Applicable Emission Factor, lb/ton); or (Coal Consumption, ton) x (2000 lb/ton) x (Heat Content, Btu/lb) x (1 mmBtu/1,000,000 Btu) x (The Applicable Emission Factor, lb/mmBtu)

- d. Compliance with Conditions 7.9.3(j) (35 IAC 214.301) and 7.9.3(k) (35 IAC 215.301) is assured by firing of only natural gas in the turbine

7.9.13 Consent Decree/Compliance Schedule

- a. The Permittee shall comply with applicable requirements of the Consent Decree, United States v. Archer Daniels Midland Company, Civil Action No. 03-2066 for the affected power house, including provisions in the Control Technology Plan for Peoria prepared and maintained pursuant to the Consent Decree (See Attachment 10.1 for a copy of the Control Technology Plan effective when this permit was issued).
- b. The Permittee shall apply for revision of this permit to address new requirements that become applicable pursuant to the Consent Decree. For this purpose, the Permittee shall promptly apply for revision of this permit after emission testing has been completed for each new control device required pursuant to the Consent Decree or the Permittee has implemented other significant measures to reduce emissions as required by the Consent Decree.

- c. The Permittee shall promptly request a revision of this permit to incorporate provisions for Turbines 6, 7 and 8 following issuance of a revised PSD permit for such units (Application 99090052).
- d. Until the CAAPP permit is revised to fully address such units, the Permittee shall operate existing control equipment in accordance with good air pollution control practice to minimize emissions.

8.0 GENERAL PERMIT CONDITIONS

8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after October 10, 2003 (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is not an affected source under Title IV of the CAA and is not subject to requirements pursuant to Title IV of the CAA.

8.3 Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement [Section 39.5(7)(o)(vii) of the Act].

As of the date of issuance of this permit, there are no such economic incentive, marketable permit or emission trading programs that have been approved by USEPA.

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes that contravene express permit terms without applying for or obtaining an amendment to this

permit, provided that [Section 39.5(12)(a)(i) of the Act]:

- a. The changes do not violate applicable requirements;
- b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;
- c. The changes do not constitute a modification under Title I of the CAA;
- d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and
- e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:
 - i. Describe the physical or operational change;
 - ii. Identify the schedule for implementing the physical or operational change;
 - iii. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;
 - iv. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and
 - v. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Condition 8.6.

8.6 Reporting Requirements

8.6.1 Monitoring Reports

If monitoring is required by any applicable requirements or conditions of this permit, a report summarizing the required monitoring results, as specified in the conditions of this permit, shall be submitted to the Air Compliance Section of the Illinois EPA every six months as follows [Section 39.5(7)(f) of the Act]:

<u>Monitoring Period</u>	<u>Report Due Date</u>
January - June	September 1
July - December	March 1

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

- a. The name and identification of the affected unit(s);
- b. The person(s) who will be performing sampling and analysis and their experience with similar tests;
- c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;
- d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;
- e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;
- f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and

- g. Any proposed use of an alternative test method, with detailed justification.

8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

- a. The name and identification of the affected unit(s);
- b. The date and time of the sampling or measurements;
- c. The date any analyses were performed;
- d. The name of the company that performed the tests and/or analyses;
- e. The test and analytical methodologies used;
- f. The results of the tests including raw data, and/or analyses including sample calculations;
- g. The operating conditions at the time of the sampling or measurements; and
- h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

8.6.4 Reporting Addresses

- a. The following addresses should be utilized for the submittal of reports, notifications, and renewals:

- i. Illinois EPA - Air Compliance Section

Illinois Environmental Protection Agency
Bureau of Air
Compliance Section (MC 40)
P.O. Box 19276
Springfield, Illinois 62794-9276

- ii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency
Division of Air Pollution Control
5415 North University
Peoria, Illinois 61614

iii. Illinois EPA - Air Permit Section (MC 11)

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section
P.O. Box 19506
Springfield, Illinois 62794-9506

iv. USEPA Region 5 - Air Branch

USEPA (AE - 17J)
Air & Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604

- b. Unless otherwise specified in the particular provision of this permit, reports shall be sent to the Illinois EPA - Air Compliance Section with a copy sent to the Illinois EPA - Air Regional Field Office.

8.7 Obligation to Comply with Title I Requirements

Any term, condition, or requirement identified in this permit by T1, T1R, or T1N is established or revised pursuant to 35 IAC Part 203 or 40 CFR 52.21 ("Title I provisions") and incorporated into this permit pursuant to both Section 39.5 and Title I provisions. Notwithstanding the expiration date on the first page of this permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule [Section 39.5(7)(j)(iv) of the Act].

9.1.2 In particular, this permit does not alter or affect the following:

- a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;
- b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and
- d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.

9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner unless an alternate schedule for compliance with the applicable requirement is established.

9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless such malfunction or breakdown is allowed by a permit condition [Section 39.5(6)(c) of the Act].

9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated thereunder.

9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(o)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Section 39.5(7)(a) and (p)(ii) of the Act and 415 ILCS 5/4]:

- a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control

equipment), practices, or operations regulated or required under this permit;

- d. Sample or monitor any substances or parameters at any location:
 - i. At reasonable times, for the purposes of assuring permit compliance; or
 - ii. As otherwise authorized by the CAA, or the Act.
- e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and
- f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

9.4 Obligation to Comply With Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

9.5 Liability

9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the sources.

9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any

loss due to damage, installation, maintenance, or operation of the source.

9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7)(o)(iv) of the Act].

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. As a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes [Section 39.5(12)(b)(iv) of the Act].

9.6.3 Retention of Records

- a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7)(e)(ii) of the Act].
- b. Other records required by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Compliance Section no later than May 1 of the following year, as required by 35 IAC Part 254.

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance

certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Section, Air Regional Field Office, and USEPA Region 5 - Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

- a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.
- b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.
- c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as an attachment to this permit.

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit [Section 39.5(7)(o)(ii) of the Act].

9.10.2 Emergency Provision

- a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:
 - i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency.

Normally, an act of God such as lightning or flood is considered an emergency;

- ii. The permitted source was at the time being properly operated;
 - iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and
 - iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.
- b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

This permit may be modified, reopened, and reissued, for cause pursuant to Section 39.5(15) of the Act. The filing of a request by the Permittee for a permit modification, revocation, and reissuance, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Act].

9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15) (a) of the Act]:

- a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;
- b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;
- c. The Illinois EPA or USEPA determines that this permit contains a material mistake or inaccurate statement when establishing the emission standards or limitations, or other terms or conditions of this permit; and
- d. The Illinois EPA or USEPA determines that this permit must be revised to ensure compliance with the applicable requirements of the Act.

9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation under Section 39.5(15) (b) of the Act.

9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7) (o) (v) of the Act].

9.13 Severability Clause

The provisions of this permit are severable, and should any one or more be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected. The rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements

underlying these provisions shall remain in force [Section 39.5(7)(i) of the Act].

9.14 Permit Expiration and Renewal

The right to operate terminates on the expiration date unless the Permittee has submitted a timely and complete renewal application. For a renewal to be timely it must be submitted no later than 9 and no sooner than 12 months prior to expiration. The equipment may continue to operate during the renewal period until final action is taken by the Illinois EPA, in accordance with the original permit conditions [Section 39.5(5)(1), (n), and (o) of the Act].

10.0 ATTACHMENTS

10.1 Attachment 1 - Control Technology Plan

**Control Technology Plan
For Peoria, IL
Dry Corn Mill**

March 14, 2003

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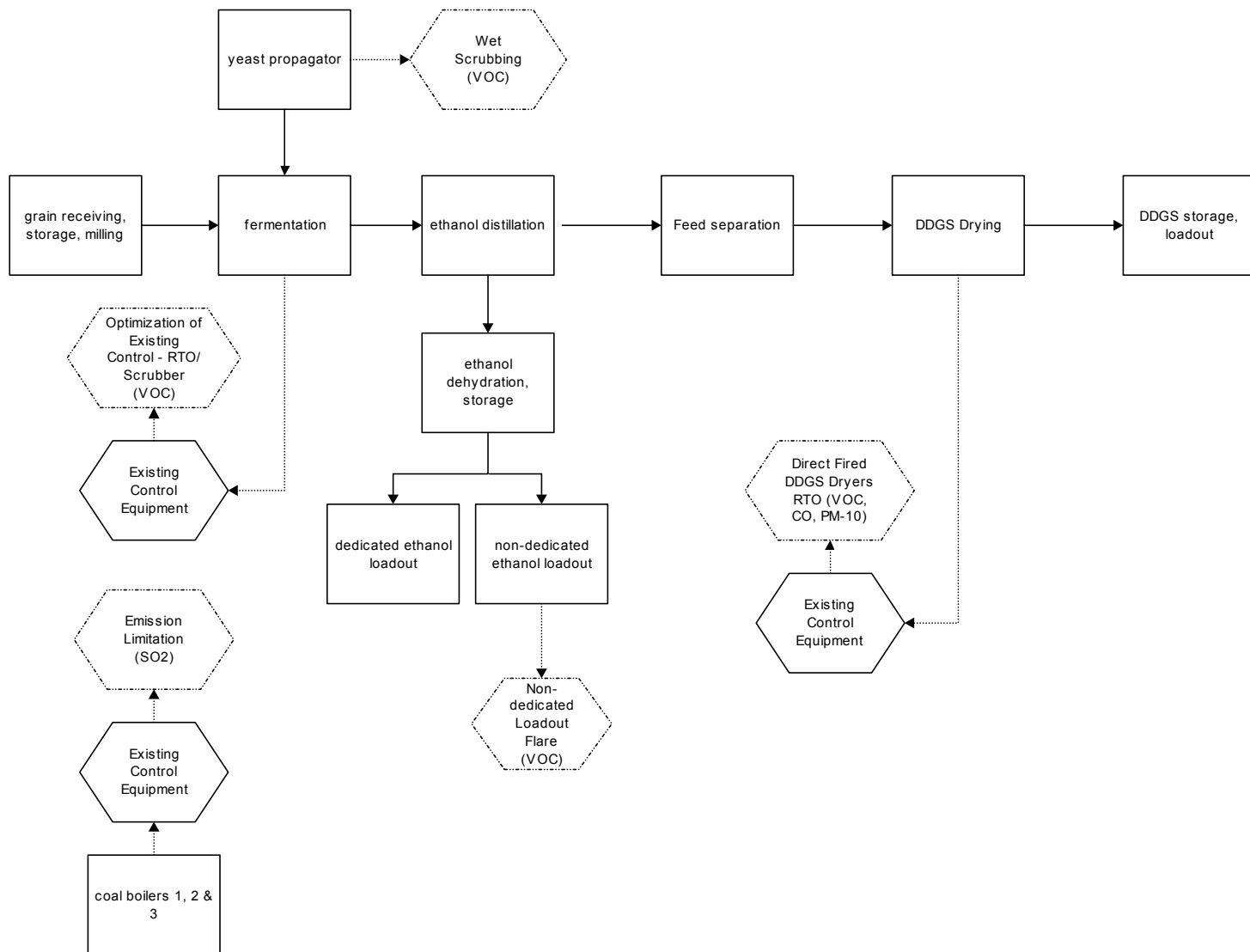
1.0 INTRODUCTION

This Control Technology Plan (CTP) contains:

- a. Identification of all units to be controlled and/or optimized;
- b. Engineering design criteria for all proposed controls capable of meeting the emission levels required by Section IV of this Consent Decree;
- c. Monitoring parameters for all control equipment;
- d. Emission limits and required reductions for each pollutant as appropriate;
- e. A schedule for installation;
- f. Identification of all units to be emission tested under the Consent Decree and definition of the test methods that will be used;
- g. A procedure for establishing emission limits following start-up of emissions control equipment.

2.0 Process Diagram

The following flow diagram presents the affected emission units and associated control technology.



Notes:

1. Dashed line shapes indicate control equipment installation/optimization or shutdown required by the consent decree.
2. Process flow diagram intended to illustrate process units, which will have additional control added.
3. Process flow does not indicate all processes or products at this facility.

3.0 Emission Units Requiring Pollution Control Equipment or Optimization of Existing Control Equipment

The following emission units and control equipment have been designated as affected units in the Consent Decree and have emission limits requiring pollution control technology or alternative projects designed to reduce emissions. Changes to the requirements listed in the following table shall be considered non-material modifications under Paragraph 5 of the Consent Decree, provided ADM obtains written approval of the change(s) from USEPA and Illinois EPA. Changes in the requirements in the following table shall be accompanied by changes to the requirements in Sections 4, 5, 6, 9, and 10 of this CTP, as appropriate.

Emission Unit #	Emission Unit Description	Control Equipment #	Control Equipment/Optimization Description
EU-FH-101	Direct Fired Feed Dryers (RTO By-Pass Stream)	CE-XX	RTO (VOC, CO, PM/PM ₁₀)
EU-ML-290 to 292	Yeast Propagators	CE-XX	Scrubber (VOC)
EU-ML-301 & 302	Ethanol Fermenters	CE- ML-303	Optimization of RTO & Scrubber (VOC)
EU-AL101 & 104	Non-dedicated Ethanol Loadout	CE-XX	Flare (VOC)
EU-PH-101, 102, & 103	Coal Boilers No. 1 - 3	N/A	Meet SO ₂ limits

Alternative Control Equipment

ADM may substitute alternative control equipment for the equipment listed in this section, provided that ADM achieves the emission reductions specified in the Consent Decree.

Pollution Prevention/Source Reduction

ADM may substitute pollution prevention or source reduction measures for the control equipment listed in this section provided that ADM achieves the emission reductions specified in the Consent Decree.

1. For units with emissions that have been measured by the test methods specified in Section 9.0 of this CTP and for which results have been submitted to USEPA and Illinois EPA, as summarized in Attachment 12 of the Consent Decree, achievement of equivalent emission reductions shall be determined by the following:

Where:

X = lbs/hr emission rate post changes

Y = lbs/hr emission rate pre changes

Z = Control efficiency required by consent decree

2. Where emissions have not been previously measured by the test methods specified in Section 9.0, ADM shall submit a written notice and test plan to USEPA and Illinois EPA for purposes of determining a pre-change baseline. Upon completion of the test this baseline shall be used for determining equivalent reductions as specified in item 1 above.
3. Where a concentration (ppm) limit is also specified in the Consent Decree for the emission unit, a final, post change outlet test can be used in lieu of the calculation in subparagraph (1), above, to determine equivalent emission reductions.

4.0 Engineering Design Criteria for Pollution Control Equipment

Any deviation from the design criteria listed here shall be reported in the semi-annual reports and as required under other state and federal rules. Note that the specific design criteria listed here are preliminary and subject to change pending development of additional data. Changes to the requirements listed in the following table shall be considered non-material modifications under Paragraph 5 of the Consent Decree, provided ADM obtains written approval of the change(s) from USEPA and Illinois EPA.

Emission Unit Description	Control Equipment #	Control Equipment / Optimization Description	Design Criteria Targets
Direct Fired Feed Dryers (RTO By-Pass Stream)	CE-XX	RTO (VOC, CO, PM/PM ₁₀)	Residence Time = > 0.65 seconds Temperature => 1600 °F
Yeast Propagators	CE-XX	Scrubber (VOC)	Gas Flow Rate » To Be Determined (TBD)* scfm Pressure Drop => TBD* in of water column Scrubbing Liquor Flow Rate => TBD*
Ethanol Fermenters	CE-ML-303	Optimization of RTO & Scrubber (VOC)	Residence Time = > 0.48 seconds Temperature => 1625 °F
Non-dedicated Ethanol Loadout	CE-XX	Flare (VOC)	Vapor Flow Rate (to flare) = TBD*

* Value to be determined once detailed engineering has been completed for the control equipment.

5.0 Monitoring Parameters for Pollution Control Equipment

Beginning no later than 30 days following startup of the control equipment described below, ADM shall monitor the parameters listed below. Changes to the requirements listed in the following table shall be considered non-material modifications under Paragraph 5 of the Consent Decree, provided ADM obtains written approval of the change(s) from USEPA and Illinois EPA.

All monitoring data collected shall be recorded and maintained on-site. Any deviation of monitoring frequency, record keeping and/or range shall be reported in the semi-annual reports and as required under other state and federal rules.

Emission Unit Description	Control Equipment #	Control Equipment / Optimization Description	Parameter Monitored	Compliance Operating Range/Limit	Monitoring Frequency
Direct Fired Feed Dryers (RTO By-Pass Stream)	CE-XX	RTO (VOC, CO, PM/PM ₁₀)	Operating Temperature	>= TBD*	Continuously
Yeast Propagators	CE-XX	Scrubber (VOC)	Pressure Drop Scrubbant Flow Rate	>= TBD* >= TBD*	Once per day
Ethanol Fermenters	CE- ML-303	Optimization of RTO & Scrubber (VOC)	Operating Temperature Pressure Drop Scrubbant Flow Rate	>= TBD* >= TBD* >= TBD*	Continuously Once per day Once per day
Non-dedicated Ethanol Loadout	CE-XX	Flare (VOC)	Presence of Pilot Flame	A device (including but not limited to a thermocouple, ultra-violet beam sensor, or infrared sensor) capable of continuously detecting the presence of a pilot flame.	Continuously

* Value to be proposed by ADM based on actual operating conditions at the time of the performance test.

6.0 Continuous Emission Monitors

The control equipment listed below shall be equipped with Continuous Emissions Monitors (CEMs). All monitoring data shall be collected, recorded and maintained on-site in accordance with the requirements of this section. Any deviation of emission limits shall be reported in the semi-annual reports and as required under other state and federal rules.

Emission Unit Description	Parameter Monitored
Coal Boilers No. 1, 2 & 3	SO ₂

The SO₂ CEMS will meet the applicable requirements of 40 CFR Part 75, Subparts A, B, C, D, and E with the following exception: ADM is required to demonstrate that a flow monitor is technically infeasible under 40 CFR Part 75.11(c) or that it is economically impractical before submitting an alternative measurement procedure for approval to the Plaintiff(s). The requirements of 40 CFR Part 75, Subparts F, G, and H do not apply. ADM shall maintain sufficient records and submit sufficient data in the semi-annual reports required by the Consent Decree to demonstrate compliance with the applicable emission limits and as required under other state and federal rules.

7.0 Emission Limits

The table below lists the emissions limits that must be met pursuant to Paragraph 23 of the Consent Decree. Any deviation from the emission limits shall be reported in the semi-annual reports and as required under other state and federal rules. Where the "Emission Limits" column references "test and set," the procedure will be that outlined in Section 10.0 of this CTP.

Emission Unit Description	Control Equipment #	Control Equipment / Optimization Description	Pollutant	Emission Limit(s)
Coal Boilers 1, 2, & 3	N/A	N/A	SO ₂	Combined SO ₂ emissions <= 3,400 tons per rolling 12-month period
				Combined SO ₂ emissions <= 421 tons per rolling 30-day period
Direct Fired Feed Dryers (RTO By-Pass Stream)	CE-XX	RTO (VOC, CO, PM/PM ₁₀) ⁽¹⁾	VOC	95% control or <= 10 ppm
			CO	90% control or <= 100 ppm
			PM/PM ₁₀	Test and set ⁽²⁾
Yeast Propagators	CE-XX	Scrubber (VOC) ⁽¹⁾	VOC	95% control or <= 20 ppm
Ethanol Fermenters	CE- ML-303	Optimization of RTO & Scrubber (VOC) ⁽¹⁾	VOC	95% control or <= 20 ppm
Non-dedicated Ethanol Loadout	CE-XX	Flare (VOC) ⁽¹⁾	VOC	95% control

- (1) All emission limitations (including operating parameter ranges and limits) apply at all times when the process equipment is operating, except, in the case of process equipment or pollution control systems, during previously planned startup and shutdown periods (including planned maintenance periods), and malfunctions as defined in 40 CFR Part 63. These startup and shutdown periods shall not exceed the minimum amount of time necessary for these events, and during these events, ADM shall minimize emissions to the extent practicable. To the extent practicable, startup and shutdown of pollution control systems will be performed during times when process equipment is also shut down. Also, ADM shall, to the extent practicable, control emissions during a malfunction event in a manner consistent with good air pollution control practice for minimizing emissions.

In addition, for dryer(s) controlled by RTOs not designed for on-line regeneration (i.e., bake-out) and that are not preceded by a WESP or equivalent device(s), the emission limitations do not apply to periods of off-line RTO regeneration not to exceed 50 dryer operating hours per calendar year and individual off-line RTO regeneration periods not to exceed 12 dryer operating hours. For RTOs servicing more than one dryer, a dryer operating hour is any hour in which one or more of the dryers is on line. Off-line RTO regeneration while all associated dryers are shut down is not included in these operating limitations. Also, off-line RTO regeneration periods that can be completed during unrelated shutdown, or malfunction periods (i.e., periods not related to the need to perform an off-line RTO regeneration) are not included in these limitations (i.e., ADM may perform "preventative" off-line RTO regenerations during periods when the RTO is off-line for other reasons such as when the RTO is off-line due to maintenance or malfunction of upstream PM control equipment which requires bypass of the RTO). ADM may petition USEPA and Illinois EPA to adjust these operating limitations for a specific RTO based on operating experience with the RTO and the dryer(s) on which the RTO is installed. Changes to these regeneration hour limitations shall be considered non-material modifications under Paragraph 5 of the Consent Decree, provided ADM obtains written approval of the change(s) from USEPA and Illinois EPA.

- (2) Will follow the protocol in Section 10.0 of this CTP.

8.0 Schedules for Emission Reduction Projects

Any deviation from the applicable schedules shall be reported in the semi-annual reports and as required under other state and federal rules.

- a) The following schedule implements paragraphs 28, 29, and 30 of the Consent Decree:

Primary Schedule - The following schedule is for emission reduction projects, which will begin implementation in the first calendar year following the lodging of the consent decree.

Emission Unit Description	Emission Reduction Project
Ethanol Fermenters	Optimization of RTO & Scrubber (VOC)

Updated Schedule - For each subsequent calendar year for the life of the Consent Decree, ADM shall submit an updated schedule by January 30, as a part of the semiannual report required in Paragraph 44 of the Consent Decree, detailing the emission reduction projects to be undertaken during the upcoming calendar year. The updated schedule shall meet the implementation schedule required in the Consent Decree. The updated schedule shall include, if applicable, the following dates for each control project: date of change in operation, equipment shut-down date, equipment purchase date, equipment installation date, initial start-up date, and emission testing date. The updated schedule shall also include design criteria for new control equipment, method of decommissioning for permanently shutting down equipment, and any other details as applicable to each control project. Changes to the updated schedule shall be considered non-material modifications under Paragraph 5 of the Consent Decree.

- b) The following projects are subject to the compliance demonstration deadline listed.

Emission Unit Description	Emission Reduction Project	Compliance Demonstration Deadline
Coal Boilers 1, 2, & 3	Combined SO ₂ emissions <= 421 tons per rolling 30-day period	March 31, 2007
Coal Boilers 1, 2, & 3	Combined SO ₂ emissions <= 3,400 tons per rolling 12-month period	March 31, 2008

9.0 Pollution Control Equipment Performance Test Schedule and Test Methods

ADM shall conduct the following performance testing pursuant to the requirements in this CTP and Paragraphs 33 and 34 in the Consent Decree.

Emission unit/ Pollution Control Device	Pollutant(s) Tested ¹	Test Method
Coal Boilers 1, 2, and 3	SO ₂	CEMs Part 75 Relative Accuracy Test Assessment (RATA)
Direct Fired Feed Dryers (RTO By-Pass Stream)	VOC (inlet & outlet) ¹ , CO (inlet & outlet) ¹ , PM/PM ₁₀ (outlet),	As applicable, Methods 1, 2, 3A or B, 4, 5/202,10, 18 as modified to include NCASI CI/WP-98.01, and 25 or 25A calibrated to propane will be used ^{2, 3} .
Yeast Propagators	VOC (inlet & outlet) ¹	As applicable, Methods 1, 2, 3A or B, 4, 18 as modified to include NCASI CI/WP-98.01, and 25 or 25A calibrated to propane will be used ^{2, 3} .
Ethanol Fermenters	VOC (inlet & outlet) ¹	As applicable, Methods 1, 2, 3A or B, 4, 18 as modified to include NCASI CI/WP-98.01, and 25 or 25A calibrated to propane will be used ^{2, 3} .
Non-dedicated Ethanol Loadout	Visible Emissions	Per 40 CFR 60.18 for open flame flare
	VOC (inlet & outlet)	As applicable, Methods 1, 2, 3A or B, 4, 18 as modified to include NCASI CI/WP-98.01, and 25 or 25A calibrated to propane will be used for enclosed flame flare ^{2, 3} .

1. When any emissions limit in Section 7.0, expressed in ppm, is met, only outlet testing is required.
2. Tests to obtain VOC mass emission rates (i.e., Methods 1, 2, 3A or B, 4, and 18 as modified to include NCASI CI/WP-98.01 plus method 25) need only be performed on the exhaust from the final control equipment.
3. Outlet testing and control efficiency testing will be based on either Method 25 or Method 25A calibrated to propane, whichever is applicable depending on

concentration (i.e., Method 25 is used on both the inlet and outlet when the outlet total hydrocarbon (THC) concentration is ≥ 50 ppm as carbon and Method 25A is used on both the inlet and outlet when the outlet THC concentration is < 50 ppm as carbon).

10.0 Procedures for Optimization of Control Equipment and Setting Emissions

PM/PM₁₀ Emissions Limits

ADM has agreed to establish PM/PM₁₀ emission limits for certain emissions units based on testing to be conducted following startup of the control equipment listed in Section 3.0 of this CTP. These limits are to be established pursuant to the requirements of Paragraphs 34, 36A, and 36B of the Consent Decree. ADM will conduct a minimum of one test (i.e., three 1-hour runs) using the methods specified in Section 9.0 of this CTP. ADM may, at its option, conduct additional tests on any emission unit to provide a more extensive database on which to base the unit's limit.

Emission Units

10.2 Attachment 2 Emissions of Particulate Matter from New Process Emission Units

10.2.1 Process Emission Units for Which Construction or Modification Commenced On or After April 14, 1972

- a. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].
- b. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.321(b)]:

$$E = A(P)^B$$

Where:

P = Process weight rate; and
E = Allowable emission rate; and,

- i. Up to process weight rates of 408 Mg/hr (450 Ton/hr):

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	lb/hr
A	1.214	2.54
B	0.534	0.534

- ii. For process weight rate greater than or equal to 408 Mg/hr (450 Ton/hr):

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	lb/hr
A	11.42	24.8
B	0.16	0.16

- c. Limits for Process Emission Units For Which Construction or Modification Commenced On or After April 19, 1972 [35 IAC 212.321(c)]:

Metric		English	
P	E	P	E
Mg/hr	kg/hr	Ton/hr	lb/hr
0.05	0.25	0.05	0.55

Metric		English	
P	E	P	E
Mg/hr	kg/hr	Ton/hr	lb/hr
0.1	0.29	0.10	0.77
0.2	0.42	0.2	1.10
0.3	0.64	0.30	1.35
0.4	0.74	0.40	1.58
0.5	0.84	0.50	1.75
0.7	1.00	0.75	2.40
0.9	1.15	1.00	2.60
1.8	1.66	2.00	3.70
2.7	2.1	3.00	4.60
3.6	2.4	4.00	5.35
4.5	2.7	5.00	6.00
9.0	3.9	10.00	8.70
13.0	4.8	15.00	10.80
18.0	5.7	20.00	12.50
23.0	6.5	25.00	14.00
27.0	7.1	30.00	15.60
32.0	7.7	35.00	17.00
36.0	8.2	40.00	18.20
41.0	8.8	45.00	19.20
45.0	9.3	50.00	20.50
90.0	13.4	100.00	29.50
140.0	17.0	150.00	37.00
180.0	19.4	200.00	43.00
230.0	22.0	250.00	48.50
270.0	24.0	300.00	53.00
320.0	26.0	350.00	58.00
360.0	28.0	400.00	62.00
408.0	30.1	450.00	66.00
454.0	30.4	500.00	67.00

10.3 Attachment 3 Emissions of Particulate Matter from Existing Process Emission Units

10.3.1 Process Emission Units for Which Construction or Modification Commenced Prior to April 14, 1972

- a. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].
- b. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.322(b)]:

$$E = C + A(P)^B$$

Where:

P = Process weight rate; and
E = Allowable emission rate; and,

- i. Up to process weight rates up to 27.2 Mg/hr (30 Ton/hr):

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	lb/hr
A	1.985	4.10
B	0.67	0.67
C	0	0

- ii. For process weight rate in excess of 27.2 Mg/hr (30 Ton/hr):

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	lb/hr
A	25.21	55.0
B	0.11	0.11
C	-18.4	-40.0

- c. Limits for Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972 [35 IAC 212.322(c)]:

Metric		English	
P	E	P	E
Mg/hr	kg/hr	Ton/hr	lb/hr
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87
0.2	0.68	0.2	1.40
0.3	0.89	0.30	1.83
0.4	1.07	0.40	2.22
0.5	1.25	0.50	2.58
0.7	1.56	0.75	3.38
0.9	1.85	1.00	4.10
1.8	2.9	2.00	6.52
2.7	3.9	3.00	8.56
3.6	4.7	4.00	10.40
4.5	5.4	5.00	12.00
9.0	8.7	10.00	19.20
13.0	11.1	15.00	25.20
18.0	13.8	20.00	30.50
23.0	16.2	25.00	35.40
27.2	18.15	30.00	40.00
32.0	18.8	35.00	41.30
36.0	19.3	40.00	42.50
41.0	19.8	45.00	43.60
45.0	20.2	50.00	44.60
90.0	23.2	100.00	51.20
140.0	25.3	150.00	55.40
180.0	26.5	200.00	58.60
230.0	27.7	250.00	61.00
270.0	28.5	300.00	63.10
320.0	29.4	350.00	64.90
360.0	30.0	400.00	66.20
400.0	30.6	450.00	67.70
454.0	31.3	500.00	69.00

10.4 Attachment 4 - Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____

Name: _____

Official Title: _____

Telephone No.: _____

Date Signed: _____

10.5 Attachment 5 - Guidance on Revising This Permit

The Permittee must submit an application to the Illinois EPA using the appropriate revision classification in accordance with Sections 39.5(13) and (14) of the Act and 35 IAC 270.302. Specifically, there are currently three classifications for revisions to a CAAPP permit. These are:

1. Administrative Permit Amendment;
2. Minor Permit Modification; and
3. Significant Permit Modification.

The Permittee must determine, request, and submit the necessary information to allow the Illinois EPA to use the appropriate procedure to revise the CAAPP permit. A brief explanation of each of these classifications follows.

1. Administrative Permit Amendment
 - Corrects typographical errors;
 - Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;
 - Requires more frequent monitoring or reporting by the Permittee;
 - Allows for a change in ownership or operational control of the source where no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittees has been submitted to the Illinois EPA;
 - Incorporates into the CAAPP permit a construction permit, provided the conditions of the construction permit meet the requirements for the issuance of CAAPP permits; or
 - Incorporates into the CAAPP permit revised limitations or other requirements resulting from the application of an approved economic incentives rule, marketable permits rule, or generic emissions trading rule.
2. Minor Permit Modification
 - Do not violate any applicable requirement;

- Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;
- Do not require a case-by-case determination of an emission limitation or other standard, or a source-specific determination of ambient impacts, or a visibility or increment analysis;
- Do not seek to establish or change a permit term or condition for which there is no corresponding underlying requirement and which avoids an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
 - A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the CAA; and
 - An alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the CAA.
- Are not modifications under any provision of Title I of the CAA; and
- Are not required to be processed as a significant permit modification.

An application for a minor permit modification shall include the following:

- A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
- The source's suggested draft permit/conditions;
- Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
- Information as contained on form 271-CAAPP for the Illinois EPA to use to notify USEPA and affected States.

3. Significant Permit Modification

- Applications that do not qualify as either minor permit modifications or as administrative permit amendments;

- Applications requesting a significant change in existing monitoring permit terms or conditions;
- Applications requesting a relaxation of reporting or recordkeeping requirements; and
- Cases in which, in the judgment of the Illinois EPA, action on an application for modification would require decisions to be made on technically complex issues.

An application for a significant permit modification shall include the following:

- A detailed description of the proposed change(s), including all physical changes to equipment, changes in the method of operation, changes in emissions of each pollutant, and any new applicable requirements which will apply as a result of the proposed change. Note that the Permittee need only submit revised forms for equipment and operations that will be modified.

The Illinois EPA requires the information on the following appropriate forms to be submitted in accordance with the proper classification:

- Form 273-CAAPP, REQUEST FOR ADMINISTRATIVE PERMIT AMENDMENT FOR CAAPP PERMIT; or
- Form 271-CAAPP, MINOR PERMIT MODIFICATION FOR CAAPP PERMIT; or
- Form 200-CAAPP, APPLICATION FOR CAAPP PERMIT (for significant modification).

Application forms can be obtained from the Illinois EPA website at <http://www.epa.state.il.us/air/forms>.

Note that the request to revise the permit must be certified for truth, accuracy, and completeness by a responsible official.

Note that failure to submit the required information may require the Illinois EPA to deny the application. The Illinois EPA reserves the right to require that additional information be submitted as needed to evaluate or take final action on applications pursuant to Section 39.5(5)(g) of the Act and 35 IAC 270.305.



Illinois Environmental Protection Agency
Division Of Air Pollution Control -- Permit Section
P.O. Box 19506
Springfield, Illinois 62794-9506

Application For Construction Permit (For CAAPP Sources Only)	For Illinois EPA use only
	ID number:
	Permit number:
	Date received:

This form is to be used by CAAPP sources to supply information necessary to obtain a construction permit. Please attach other necessary information and completed CAAPP forms regarding this construction/modification project.

Source Information		
1. Source name:		
2. Source street address:		
3. City:	4. Zip code:	
5. Is the source located within city limits? <input type="checkbox"/> Yes <input type="checkbox"/> No		
6. Township name:	7. County:	8. ID number:

Owner Information		
9. Name:		
10. Address:		
11. City:	12. State:	13. Zip code:

Operator Information (if different from owner)		
14. Name		
15. Address:		
16. City:	17. State:	18. Zip code:

Applicant Information	
19. Who is the applicant? <input type="checkbox"/> Owner <input type="checkbox"/> Operator	20. All correspondence to: (check one) <input type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Source
21. Attention name and/or title for written correspondence:	
22. Technical contact person for application:	23. Contact person's telephone number:

This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

Summary Of Application Contents	
24.	Does the application address whether the proposed project would constitute a new major source or major modification under each of the following programs: a) Non-attainment New Source Review – 35 IAC Part 203; b) Prevention of Significant Deterioration (PSD) – 40 CFR 52.21; c) Hazardous Air Pollutants: Regulations Governing Constructed or Reconstructed Major Sources – 40 CFR Part 63?
	<input type="checkbox"/> Yes <input type="checkbox"/> No
25.	Does the application identify and address all applicable emissions standards, including those found in the following: a) Board Emission Standards – 35 IAC Chapter I, Subtitle B; b) Federal New Source Performance Standards – 40 CFR Part 60; c) Federal Standards for Hazardous Air Pollutants – 40 CFR Parts 61 and 63?
	<input type="checkbox"/> Yes <input type="checkbox"/> No
26.	Does the application include a process flow diagram(s) showing all emission units and control equipment, and their relationship, for which a permit is being sought?
	<input type="checkbox"/> Yes <input type="checkbox"/> No
27.	Does the application include a complete process description for the emission units and control equipment for which a permit is being sought?
	<input type="checkbox"/> Yes <input type="checkbox"/> No
28.	Does the application include the information as contained in completed CAAPP forms for all appropriate emission units and air pollution control equipment, listing all applicable requirements and proposed exemptions from otherwise applicable requirements, and identifying and describing any outstanding legal actions by either the USEPA or the Illinois EPA? Note: The use of "APC" application forms is not appropriate for applications for CAAPP sources. CAAPP forms should be used to supply information.
	<input type="checkbox"/> Yes <input type="checkbox"/> No
29.	If the application contains TRADE SECRET information, has such information been properly marked and claimed, and have two separate copies of the application suitable for public inspection and notice been submitted, in accordance with applicable rules and regulations?
	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable, No TRADE SECRET information in this application

Note 1: Answering "No" to any of the above may result in the application being deemed incomplete.

Signature Block	
This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.	
30. I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate and complete. Authorized Signature:	
BY:	
_____	_____
AUTHORIZED SIGNATURE	TITLE OF SIGNATORY
_____	_____/_____/_____
TYPED OR PRINTED NAME OF SIGNATORY	DATE

Note 2: An operating permit for the construction/modification permitted in a construction permit must be obtained by applying for the appropriate revision to the source's CAAPP permit, if necessary.

10.7 Attachment 7 - Guidance on Renewing This Permit

Timeliness - Pursuant to Section 39.5(5)(n) of the Act and 35 IAC 270.301(d), a source must submit to the Illinois EPA a complete CAAPP application for the renewal of a CAAPP permit not later than 9 months before the date of permit expiration of the existing CAAPP permit in order for the submittal to be deemed timely. Note that the Illinois EPA typically sends out renewal notices approximately 18 months prior to the expiration of the CAAPP permit.

The CAAPP application must provide all of the following information in order for the renewal CAAPP application to be deemed complete by the Illinois EPA:

1. A completed renewal application form 200-CAAPP, APPLICATION FOR CAAPP PERMIT.
2. A completed compliance plan form 293-CAAPP, COMPLIANCE PLAN/SCHEDULE OF COMPLIANCE FOR CAAPP PERMIT.
3. A completed compliance certification form 296-CAAPP, COMPLIANCE CERTIFICATION, signed by the responsible official.
4. Any applicable requirements that became effective during the term of the permit and that were not included in the permit as a reopening or permit revision.
5. If this is the first time this permit is being renewed and this source has not yet addressed CAM, the application should contain the information on form 464-CAAPP, COMPLIANCE ASSURANCE MONITORING (CAM) PLAN.
6. Information addressing any outstanding transfer agreement pursuant to the ERMS.
7. a. If operations of an emission unit or group of emission units remain unchanged and are accurately depicted in previous submittals, the application may contain a letter signed by a responsible official that requests incorporation by reference of existing information previously submitted and on file with the Illinois EPA. This letter must also include a statement that information incorporated by reference is also being certified for truth and accuracy by the responsible official's signing of the form 200-CAAPP, APPLICATION FOR CAAPP PERMIT and the form 296-CAAPP, COMPLIANCE CERTIFICATION. The boxes should be marked yes on form 200-CAAPP, APPLICATION FOR CAAPP PERMIT, as existing information is being incorporated by reference.

- b. If portions of current operations are not as described in previous submittals, then in addition to the information above for operations that remain unchanged, the application must contain the necessary information on all changes, e.g., discussion of changes, new or revised CAAPP forms, and a revised fee form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT, if necessary.
8. Information about all off-permit changes that were not prohibited or addressed by the permit to occur without a permit revision and the information must be sufficient to identify all applicable requirements, including monitoring, recordkeeping, and reporting requirements, for such changes.
9. Information about all changes made under 40 CFR 70.4(b)(12)(i) and (ii) that require a 7-day notification prior to the change without requiring a permit revision.

The Illinois EPA will review all applications for completeness and timeliness. If the renewal application is deemed both timely and complete, the source shall continue to operate in accordance with the terms and conditions of its CAAPP permit until final action is taken on the renewal application.

Notwithstanding the completeness determination, the Illinois EPA may request additional information necessary to evaluate or take final action on the CAAPP renewal application. If such additional information affects your allowable emission limits, a revised form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT must be submitted with the requested information. The failure to submit to the Illinois EPA the requested information within the time frame specified by the Illinois EPA, may force the Illinois EPA to deny your CAAPP renewal application pursuant to Section 39.5 of the Act.

Application forms may be obtained from the Illinois EPA website at <http://www.epa.state.il.us/air/forms.html>.

If you have any questions regarding this matter, please contact a permit analyst at 217/782-2113.

Mail renewal applications to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
P.O. Box 19506
Springfield, Illinois 62794-9506

MVH:psj